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MR. W. F. MOORE, Dundas
President O.E.A. 1920.

Educ.
O.

Annual report and

PROCEEDINGS

OF THE

Fifty-Ninth Annual Convention

OF THE

Ontario
Educational Association

HELD IN

TORONTO

On the 5th, 6th, 7th and 8th April, 1920



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TORONTO

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1920

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BOARD OF DIRECTORS, 1920-21

President.....JAS. DAVISON, B.A., Guelph
Secretary.....ROBT. WILLSON DOAN, Toronto
Treasurer.....R. M. SPEIRS, Toronto

ELEMENTARY DEPARTMENT

President.....L. J. COLLING, Hamilton
Secretary.....CHAS. G. FRASER, Toronto

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Secretary.....M. R. REID, B.A., Sharbot Lake

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Secretary.....REV. W. M. MORRIS, Orangeville
Director.....E. H. WICKWARE, D.D.S., Smith's Falls

REPRESENTATIVES FROM SECTIONS

Public School.....W. H. JOHNSTON, Kippen; Miss MINA ROSS, Peterborough; A. E. BRYSON, Cobalt; R. G. ELLIOTT, Toronto; Miss HELEN ARBUTHNOT, Toronto.
Kindergarten..Miss L. M. DENT, Toronto; Miss L. B. WILLIAMS, Toronto
Home Science.....Miss EDNA PARK, Toronto
Technical and Manual Arts.....ALFRED HOWELL, A.R.C.A., Toronto
Hygiene and Public Health.....W. B. SECCOMBE, D.D.S., Toronto
Reformed Spelling.....JOHN DEARNESS, M.A., London
League of the Empire.....JAS. L. HUGHES, LL.D., Toronto
Home and School Council.....S. B. MCCREADY, B.A., Toronto
Modern Language.....F. C. A. JEANNERET, B.A., Toronto
Natural Science.....L. H. GRAHAM, B.A., Toronto
Classical.....JOHN S. BENNETT, B.A., Toronto
Mathematical and Physical.....CHAS. AULD, M.A., Tillsonburg
English and History.....GEO. MALCOLM, B.A., Stratford
Commercial.....WM. WARD, B.A., B.Pæd., Toronto
Continuation.....G. A. CLARK, Drayton
High School Principals.....G. H. REED, B.A., B.Pæd., Toronto
Inspectors..J. H. SMITH, B.A., Stratford; E. E. C. KILMER, B.A., Brantford
Training.....M. A. SORSOLEIL, B.A., Toronto
Music.....A. T. CRINGAN, Mus.Bac., Toronto

PAST PRESIDENTS

OF THE

Ontario Educational Association

1861.....	T. J. ROBERTSON, M.A.
1862.....	REV. JOHN McCAUL, D.D.
1863-4-5.....	DANIEL WILSON, LL.D.
1866-67.....	REV. WILLIAM ORMISTON, D.D.
1868.....	WILLIAM McCABE, LL.D.
1869-70.....	S. S. NELLES, D.D.
1871.....	GEORGE PAXTON YOUNG, M.A.
1872.....	REV. WILLIAM SNODGRASS, LL.D.
1873.....	PROFESSOR NICHOLSON
1874-75.....	GOLDWIN SMITH, LL.D.
1876.....	EGERTON RYERSON, LL.D.
1877.....	WILLIAM CAVEN, D.D.
1878.....	JAMES A. McLELLAN, M.A., LL.D.
1879-80.....	ROBERT ALEXANDER
1881-82.....	ARCHIBALD McMURCHY
1883.....	HON. G. W. ROSS, LL.D.
1884.....	JAMES A. McLELLAN, M.A., LL.D.
1885.....	SAMUEL McALLISTER
1886.....	H. L. STRANG, B.A.
1887.....	JOSEPH H. SMITH
1888.....	ROBERT McQUEEN
1889.....	D. C. McHENRY, M.A.
1890-91.....	WILLIAM MACKINTOSH
1892.....	SAMUEL B. SINCLAIR, B.A.
1893.....	ALEXANDER STEELE, M.A.
1894.....	S. T. LAZIER, LL.B.
1895.....	ALFRED BAKER, M.A.
1896.....	JOHN DEARNESS
1897.....	{ A. A. JORDAN
	{ JOHN MUNROE
1898.....	J. E. FARWELL, LL.B.
1899.....	MRS. ADA M. HUGHES
1900.....	JOHN HENDERSON, M.A.
1901.....	THOMAS KIRKLAND, M.A.
1902.....	JOHN SEATH, LL.D.
1903.....	DAVID YOUNG
1904.....	REV. CHANCELLOR BURWASH
1905.....	JOHN BALL DOW, B.A.
1906.....	WILLIAM SCOTT, B.A.
1907.....	L. E. EMBREE, LL.D.
1908.....	W. H. BALLARD, M.A.
1909.....	H. WARD, B.A.
1910.....	F. W. MERCHANT, M.A., D.Pæd.
1911.....	JOHN H. LAUGHTON
1912.....	JAMES L. HUGHES, LL.D.
1913.....	C. A. MAYBURY, LL.D.
1914.....	W. J. SUMMERBY
1915.....	CHAS. G. FRASER
1916.....	MAURICE HUTTON, M.A., LL.D.
1917.....	W. PAKENHAM, B.A., D.Pæd.
1918.....	REV. JAMES BUCHANAN, M.A.
1919.....	W. F. MOORE

PROCEEDINGS
OF THE
Fifty-Ninth Annual Convention
OF THE
ONTARIO EDUCATIONAL ASSOCIATION

MINUTES OF THE GENERAL ASSOCIATION.

TORONTO, TUESDAY, APRIL 6TH, 1920.

The Ontario Educational Association met this day in Convocation Hall, University of Toronto.

Mr. W. F. Moore, the President, took the chair at 8.20 p.m.

Rev. James Buchanan conducted the devotional exercises by reading from the 21st Chapter of John, and leading in prayer.

It was moved by Mr. Fraser and seconded by Dr. Hughes, That as the minutes of the meeting, held in April, 1919, have been printed and distributed, they be, and are hereby confirmed. Carried.

The Secretary stated that several communications had been received, laid before the Board of Directors at the meeting on Monday, and dealt with at the said meeting. This was approved of by the meeting.

Miss Turner's Entrance class from Perth Avenue School, under the direction of Miss Anna Hunter, sang "Unto the hills around do I lift up my longing eyes," which was received with great favor, and they kindly responded with "Fight the Good Fight."

Hon. R. H. Grant, Minister of Education, on behalf of the Ontario Government, warmly welcomed the Association to the University.*

The President named the following as members of two committees to draft resolutions, expressing the sorrow of the members of the Association at the death of Principal William Scott, B.A., and of Inspector Henry Ward, B.A., said resolutions to be laid before the meeting on Wednesday evening:

* See address in full.

For Mr. Scott—Messrs. Radcliffe, Moshier, Casselman and Dr. Silcox.

For Mr. Ward—Messrs Cowley, Elliott and Fraser.

The following were appointed representatives to the Social Service Council: Rev. Jas. Buchanan, Toronto; Miss A. B. Hendry, Hamilton; Miss F. E. Patterson, Dundas; Chas. G. Fraser, Toronto; Martin Kerr, Hamilton; W. E. Foster, Brantford, and Miss Helen Arbuthnot, Toronto.

Jack Miner addressed the Association on "The Ways and Intelligence of our Birds." *

The nomination of officers resulted as follows:

President..... James Davison, B.A., Guelph.

Secretary..... Robert W. Doan, Toronto.

Treasurer..... R. M. Speirs, Toronto.

There being no other nominations, the President declared the above named members elected as officers of the Association.

The following nominations for representatives on the Superannuation Committee were made:

Messrs. R. A. Gray, B.A., Toronto; J. H. Putman, B.A., D.Paed., Ottawa; T. A. Reid, Hamilton. The election to take place on Wednesday evening—two to be elected.

The Entrance Class from Perth Avenue School then came to the platform, and without accompaniment, under the able leadership of Miss Hunter, sang "Forget-Me-Not."

After the singing of the National Anthem the President declared the meeting adjourned.

After the adjournment, a reception was held by Principal Hutton on behalf of the University of Toronto. It was largely attended.

WEDNESDAY, APRIL 7TH, 1920.

The Association met in Convocation Hall, University of Toronto.

President Moore took the chair at 8 p.m.

Rev. James Buchanan conducted devotional exercises by reading the 23rd Psalm, and leading in prayer.

* See address in full.

Principal Hutton addressed the Association on the work done by the League of the Empire.*

The Glee Club from Perth Avenue School, under the direction of Miss Anna Hunter, rendered, very artistically, "The Lord is My Shepherd."

A telegram was received—the greetings of the Saskatchewan Education Association.

By resolution, the President was requested to reply to this message.

A letter from the Auxiliary Class Teachers Association was read and referred to the incoming Board of Directors:

The President asked Principal Hutton to take the chair while he gave his Presidential Address.

President Moore addressed the Association on "Educational Needs." *

The election of Commissioners of Superannuation was held, and it resulted in the election of Dr. J. H. Putman and Principal R. A. Gray.

The Glee Club from Perth Avenue School sang "Unto the Hills Around do I Lift up Mine Eyes."

Moved by Mr. C. G. Fraser, seconded by Dr. Hughes, That the Pupils of Perth Avenue School receive a similar acknowledgment to that which they received last year. Carried.

Messrs. Putman and Gray reported on the work done by the Superannuation Committee.*

The President resumed the chair.

Professor J. M. Artman, of the University of Chicago, addressed the Association on "Education Through Directed Play." *

Moved by Mrs. Marriott, seconded by Dr. Jas. L. Hughes, That the thanks of this meeting be tendered to Professor Artman for his admirable address. Carried.

The meeting then adjourned.

After the adjournment, the League of the Empire gave a reception to the members of the Association. The officers of the League were assisted by Mrs. E. C. Drury and Mrs. R. H. Grant.

*See address in full.

THURSDAY, APRIL 8TH, 1920.

Rev. W. A. Cameron conducted devotional exercises by reading from the Scriptures and leading in prayer.

Professor R. B. Thompson addressed the Association on the proposal to establish a Botanic Garden in Toronto.*

Moved by Mr. Chas. G. Fraser, seconded by Inspector Michell,

Whereas it has been proposed by a Committee of the University of Toronto, that a Botanic Garden be established in the City of Toronto;

And, whereas such a Garden would be not only an attractive asset for the City and the Province but also of great value for educational work.

Therefore, be it resolved, that we the members of the Ontario Educational Association most heartily approve of the proposal and that we respectfully urge the co-operation of the Ontario Government and the City of Toronto with the University;

And that a copy of this resolution be forwarded to each of the above mentioned bodies. Carried.

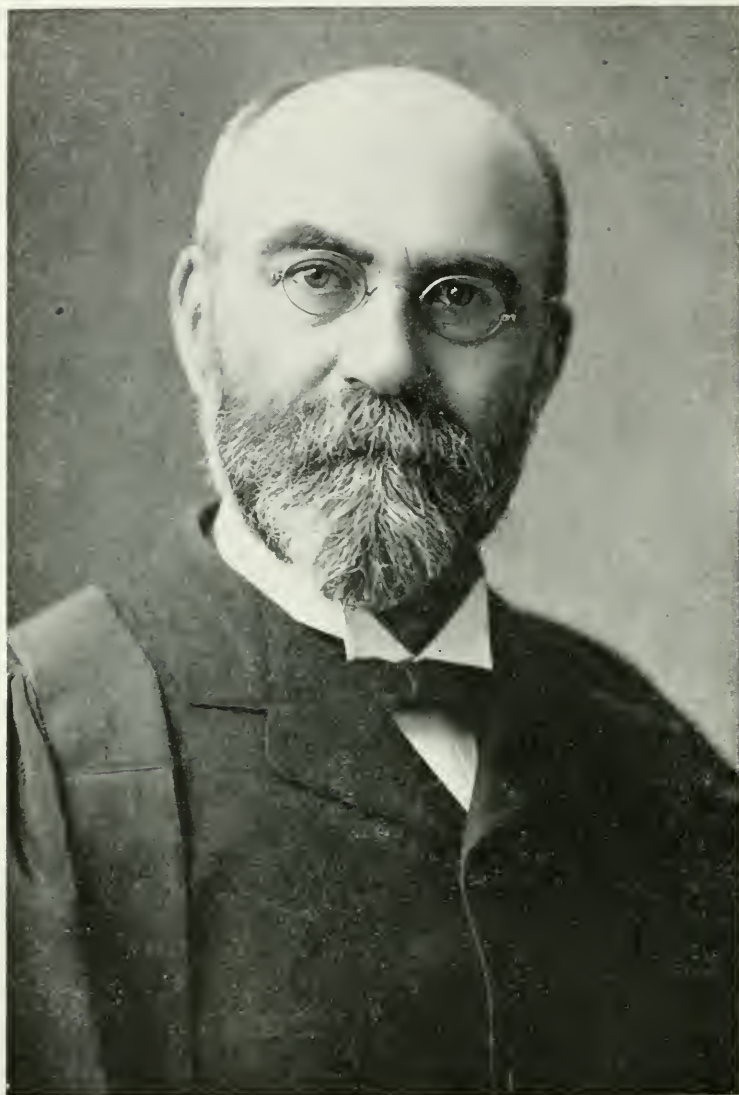
Moved by Mr. Chas. G. Fraser, seconded by Mr. A. E. Bryson:

That we express our deep appreciation of the very nice compliment which His Honor, the Lieutenant-Governor and Mrs. Clarke have paid to the officers and members of the Ontario Educational Association in extending to them an invitation to a reception at Government House, on Wednesday afternoon, April 7th, with the opportunity it gave the teachers of the Province of seeing the beautiful residence and the example of the kindly service which His Honor and Mrs. Clarke have shown in so many cases since he was called to occupy the distinguished position of Lieutenant-Governor of the Province of Ontario;

And that the Secretary be instructed to convey this resolution to Lieutenant-Colonel Alexander Fraser, His Honor's aide-de-camp. Carried.

Moved by Mr. Chas. G. Fraser, seconded by Mr. S. J. Radcliffe: That we recommend to the O.E.A. the appointment of one or two delegates to the meeting that is to be held in Calgary this coming summer to form a federation of the teachers of the four Western Provinces, to take up the consideration of the formation of a Dominion Federation of Teachers. Carried.

* See address in full.



WILLIAM SCOTT, B.A.
Principal, Toronto Normal School.

Moved by Mr. Chas. G. Fraser, seconded by Rev. James Buchanan:

That we recommend to the Superannuation Commission the immediate actuarial examination which, according to the Superannuation Act, is to take place in 1921, to see if more generous allowances cannot be granted to those with the smaller allowances, and also whether the required forty years of service cannot be lessened. Carried.

Brig.-Gen. C. H. Mitchell, C.B., C.M.G., addressed the Association on "The Country's Requirements for a Scientific Education." *

Hon. H. J. Cody, D.D., addressed the Association on "The Test of Progress."

Moved by Mr. R. M. Spiers, seconded by Rev. Jas Buchanan:

That the thanks of this Association are hereby tendered to the Hon. R. H. Grant, Brig.-Gen. C. H. Mitchell and the Hon. H. J. Cody for their inspiring addresses, and to Miss Anna J. Hunter and the pupils of Perth Avenue School for their contributions to the pleasure and success of the meetings. Carried.

The Secretary read the Auditor's report, which was adopted.*

The following resolution regarding Mr. William Scott, B.A., late Principal of Toronto Normal School, a Past President of the Ontario Educational Association, was presented by Principal S. J. Radcliffe:

The members of the Ontario Educational Association wish hereby to express their deep sorrow for the death of Mr. William Scott, the late Principal of the Toronto Normal School. They wish to record their high esteem for his lofty ideals, his untiring energy and his great talents as an educator, as well as for his devotion to the work of this Association.

They also desire to extend their deepest sympathy to Mrs. Scott and the family in their bereavement. The resolution was adopted.

The following resolution regarding the late Mr. Henry Ward, B.A., Public School Inspector, for years the Treasurer of the Ontario Educational Association, and a Past President of the Association, was presented by Principal Chas. G. Fraser:

We, the officers and members of the Ontario Educational Association desire to place on record our deep appreciation of our

* See address in full.

former fellow member and esteemed friend, the late Henry Ward, teacher, principal and inspector, past president and treasurer of our Association, and to express the great loss we feel in his untimely death.

Through many years of association, we had learned to prize him for his sterling qualities of head and heart, his high ideals, his devoted spirit, his wise counsel, his progressive conservatism, his indefatigable labors to advance the great cause of education, and the interests of the teaching profession, to which he had dedicated his life.

We shall miss his cheery word, and the hearty clasp of his hand, but the influence of his life will continue to stimulate us to greater devotion and nobler endeavor.

To his daughters we wish to express our deepest sympathy; and our sincere prayer is that the Master will keep them in His loving care and pour balm into their wounded hearts so that they may be enabled to take up the torch, so unexpectedly dropped, and bear it high.

That the Secretary be instructed to convey this resolution to Mr. Ward's two daughters.

The resolution was adopted.

Moved by Mr. Chas. G. Fraser, seconded by Mr. Jas. R. Bulmer:

That the O.E.A. be asked to continue work of the Salary Committee, to accumulate information and direct a campaign to increase the salaries of the teachers of the Province.

That the following be a committee: Mr. Fraser, Mr. Speirs, Miss Arbuthnot, Mr. Kerr, Mr. Johnson, Mr. Kemp, Miss Evelyn Johnston, Miss Adkins, Miss Ross, Mr. Michell, Dr. Hardy and Mr. Keast, Judge Scott, Rev. W. M. Morris and Mr. Farewell.

That this committee take up the work of endeavoring to organize a Federation of all the teachers of the Province, of both High and Public Schools. Carried.

The meeting was then adjourned.

R. W. DOAN, *General Secretary.*



HENRY WARD, B.A.
Public School Inspector, Toronto.

MINUTES OF THE ELEMENTARY DEPARTMENT

THURSDAY, APRIL 8TH, 1920.

The meeting of the Elementary Department of the Ontario Educational Association was held in the East Hall of the University Building, on the afternoon of the above date.

The meeting was called to order at 9.15, President N. C. Mansell, Sault Ste. Marie, in the chair.

The devotional exercises were conducted by Secretary Fraser.

The minutes of the last meeting were taken as read and confirmed.

Mr. L. J. Colling, the Vice-President, was called to the chair, and expressed his appreciation of the honor of being elected Vice-President of so important a branch of the O. E. A. as the Elementary Department.

President Mansell then presented his address, dealing with the problem of the Education and Absorption of the Foreign Elements of our country, showing particularly the problem which devolved upon such a centre of industry as Sault Ste. Marie. By resolution the address appears in the Report of the Proceedings.*

The election of officers resulted as follows:—

President, Mr. L. J. Colling, Hamilton.

Vice-President, Miss Isabel Sharman, Goderich.

Sec.-Treas., Mr. Chas. G. Fraser, 10 Sylvan Avenue, Toronto.

The meeting then adjourned.

CHAS. G. FRASER.

Secretary.

*See Address in full.

MINUTES OF THE PUBLIC SCHOOL SECTION.

TUESDAY, APRIL 6TH, 1920.

The Public School Section of the Ontario Educational Association met in the East Hall of the University of Toronto, on the above date. The first hour was devoted to the registering of delegates and members and a social re-union—the meeting of old friends and the making of new ones.

At 10.00 o'clock, the meeting was called to order. Mr. A. E. Bryson, Cobalt, President, in the chair, read a portion of Scripture and all united in the Lord's Prayer.

Chas. G. Fraser was elected Minute Secretary.

On motion of Mr. W. F. Moore, and Mr. J. F. Carmichael, the minutes, as printed in last year's Report of the Proceedings, were taken as read and confirmed.

The following communications of the year were presented:—

(1) From the officials of the various Departments and Sections of the O.E.A. for 1919-1920;

(2) The correspondence with the officials and members of the Executive of the Public School Section of the O.E.A.

(3) The correspondence with the local institutes for the year and the resolutions of Provincial importance that had been passed.

(4) The correspondence with the teachers' institutes forwarding the delegate membership fee to the Public School Section.

These communications were received and referred to the committee on Resolutions, and the President was asked to appoint such a committee and announce the same before the close of the morning session.

The Secretary then presented his Report which was received and adopted.

The Treasurer, Mr. R. M. Spiers, then presented his financial statement which was as follows:—

RECEIPTS.

Balance on hand, April 24th, 1919	\$435 30
Members' Fees, (228)	225 25
Teachers' Institutes, (Delegates' Fees)	210 00
Total	<u>\$870 55</u>

EXPENDITURES

Assistant Treasurer, (R. G. Elliott),	10 00
Treasurer (R. M. Spiers),	30 00
Secretary (Chas. G. Fraser),	125 00
General Secretary, (Members' Fees)	89 20
Viseing Railway Certificates.....	\$38 25
Postage Allowance,	50 00
Caretaker,	2 00
Balance on Hand,	506 10

Total	\$870 55
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R. M. SPIERS,
Treasurer.

The report was received and referred to the auditors, Mr. M. W. Althouse, London, and Mr. R. G. Elliott, Toronto.

The Report of the Legislation Committee was presented by Mr. W. H. Johnston, Vice-President, and was received and adopted.

On motion of Secretary Fraser, seconded by Principal Moore, the resolutions sent in by the various teachers' institutes were taken as Notices of Motion to be considered at the proper time, as well as being dealt with by the Committee on Resolutions.

On motion of Mr. Martin Kerr, seconded by Mr. W. H. Johnston, it was decided to make a special appeal this year to the County Institutes for their support in carrying on the work of this section of the O. E. A.

Mrs. A. C. Courtice then presented a thoughtful paper on "The Entrance Examination," which was highly appreciated, and on motion of Principal Rogers, and Principal Moore, a vote of thanks was tendered to her and a request made to have the paper appear in the Report of the Proceedings.

The President then named the following as the Committee on Resolutions:—Mr. W. H. Johnston, Vice-President, (Chairman), Mr. Martin Kerr, (Hamilton), Mr. L. J. Colling (Peterboro') Mr. M. W. Althouse (London), Mr. John A. Graham, (Durham), Mr. John Drury, (Belfountain), Mr. J. F. Carmichael, (Kitchener), Mr. G. A. Jordison, (Bancroft), Mr. C. E. Dakins, (Cobalt), Mr. S. Nethercott, (Woodstock), Mr. John Rogers, (Lindsay), Miss I. E. Sharman, (Goderich), Miss M. S. Arbuthnot, (Toronto), Miss C. I. Winters, (Pembroke), Mrs. A. Alkenbrack, (Cataraqui), the President and the Secretary.

The meeting then adjourned.

Tuesday Afternoon Session.

The meeting was called to order at 2 o'clock, President Bryson in the chair. From 1.30 to 2.00 Miss Mae E. Skilling of the Columbia Graphophone Company had given a demonstration of the use of the Grafonola in the schoolroom which was witnessed by a very interested company.

Dr. Eric Clark gave a very suggestive paper on "Mental Hygiene in the Public School."*

Mr. W. H. Johnston, the Vice-President, was then called to the chair and President Bryson delivered the Presidential address on "The Other Seventeen," dealing with the seventeen hours of the teacher's day which he spends outside of the schoolroom.*

On motion of Mr. M. W. Althouse, seconded by Mr. Martin Kerr, the President was congratulated on his address and it was requested that it be included in the Report of the Proceedings.

The choir of Williamson Road School, under the leadership of Miss Eleanor Baskerville, then delighted the Section with the rendering of a selection and kindly responded to a hearty encore.

The Rev. D. Bruce Macdonald, Principal of St. Andrew's College, then gave a very instructive paper on "The Relation of Play to the Education of the Child."*

The Williamson Road School choir again favored the Section by singing "The Men of Harlech."

On motion of Mr. W. H. Johnston and Mr. Martin Kerr, the choir was complimented on its excellent work and Miss Baskerville was thanked for her kindness in delighting the Section. The Secretary was instructed to see that the services of the choir were suitably recognized.

On behalf of Miss Baskerville, Principal Vallentyne made a suitable reply, expressing the pleasure it had given the leader and the choir to be present.

Captain the Rev. A. D. Robb, of Dundas, gave a most inspiring address on "Character Building", and on motion of Mr. L. J. Colling and Mr. C. E. Kelly, the thanks of the Section were tendered to the speaker, with the request that the address be included in the Report of the Proceedings as well as that of Dr. Clark and Dr. Bruce Macdonald.

The meeting then adjourned.

*See address in full.

WEDNESDAY, APRIL 7TH, 1920.

The forenoon session of the Public School Section of the O.E.A. took the form of four conferences:—Public School Principals', Rural Teachers', Primary Teachers', and the Federation of Women Teachers' Associations of Ontario.

Wednesday Afternoon Session.

The meeting was called to order at 2.10, at the conclusion of another demonstration by Miss Mae Skilling, assisted by classes from Perth Avenue and Duke of Connaught Schools.

Major J. P. Cowles, B.A., Provincial Attendance Officer, placed before the Section the main features of the School Attendance Act and pointed out the ways in which he hoped for the co-operation of the teachers and school boards of the Province.

"The Value of Rote Singing Apart from the Theory of Music" was presented by Miss Mae Skilling, which, by resolution, appears in the Report. *

Professor J. M. Artman, University of Chicago, then gave an address on "The Education of Recreational Leaders".

The meeting then adjourned.

THURSDAY, APRIL 8TH, 1920.

The meeting was called to order at 10.00 o'clock, at the conclusion of the meeting of the Elementary Department, President Bryson in the Chair.

The minutes of the previous sessions were read and confirmed.

The report of the Auditors was received and adopted.

By request, Mr. Martin Kerr, presented the Report which he had prepared for presentation to the General Association, on "The Formation of a Business Organization of the Teachers of Ontario, in Affiliation with the Ontario Educational Association," but which had been crowded out on Tuesday evening on account of the fullness of the programme and the lateness of the hour.

It was urged that the suggestion should be acted upon at once and, by the courtesy of the Women Teachers, the Men Teachers of the Section withdrew to the Ladies' Library and formed themselves into the Ontario Public School Men Teachers' Federation, to act in friendly co-operation with the Women Teachers' Federation and

*See address in full.

the Secondary School Teachers' Federation and to take such steps as might be advisable with a view to the formation of one professional business organization for the teachers of the Province.

Mr. A. E. Bryson, Cobalt, was elected Chairman of the meeting, and Chas. G. Fraser was elected Secretary.

On motion of Mr. Shanz and Mr. Ward, it was decided to organize as the Public School Men Teachers' Federation of the Province.

The election of officers resulted as follows:—

President, Mr. Martin Kerr, B.A., Hamilton.

Vice-President, Mr. J. A. Short, Swansea.

Secretary-Treasurer, Mr. Chas. G. Fraser,

10 Sylvan Avenue, Toronto.

COMMITTEE:—

Mr. D. R. Kemp, Ottawa.

Mr. M. W. Althouse, London

Mr. A. B. Shantz, Toronto.

Mr. A. E. Bryson, Cobalt.

Mr. W. J. Thomson, Toronto.

Mr. R. F. Downey, B.A.,
B.Pæd., Peterboro.

Mr. R. M. Spiers, Toronto.

The Executive was instructed: (1) To prepare a tentative Constitution. (2) To appeal to the Men Teachers associated with the Public Schools of Ontario, including the teachers of the Normal Schools. (3) To secure a Charter; and (4) To make an effort to direct the business interests of the men teachers throughout the Province.

The meeting then adjourned.

CHAS. G. FRASER,

Secretary.

When the Men Teachers returned, the meeting was again called to order and Mr. W. H. Johnston presented the report of the Committee on Resolutions which was adopted.

On motion of Principal Spiers and Principal Shantz, the Section approved of the plan for a school building which Mr. A. J. Ros-
tance of Toronto has presented in model. *

*See address in full.

The election of officers resulted as follows:—

President, W. H. Johnston, Kippen.

Vice-President, Miss Mina Ross, Peterboro.

Past President, A. E. Bryson, Cobalt.

Secretary, Chas. G. Fraser,
10 Sylvan Avenue, Toronto.

Treasurer, R. G. Elliott, Toronto.

Director, Miss H. S. Arbuthnot, Toronto.

On motion of Mr. Chas. E. Dakins, seconded by Mr. James Shaw, the Honorarium of the Secretary was raised to \$500.

The usual allowances were then passed and the meeting adjourned.

Thursday Afternoon Session.

The meeting was called to order at 2.15, President Bryson in the Chair.

Miss Grace Johnston, Toronto, presented a very interesting paper on "Misunderstood Children", which, by resolution, appears in the Report. *

Mr. Taylor Statten, the Leader in Boys' Work in the Y.M.C.A. gave a very spirited address on "Developing Canadian Boy Power".

Secretary Fraser presented a suggestive paper on "How to Conduct a Salary Campaign." *

The meeting then adjourned.

CHAS. G. FRASER,
Secretary.

*See address in full.

THE RURAL TEACHERS' CONFERENCE.

The Rural Teachers met in conference in the East Hall on Wednesday morning, April 7th.

Mr. J. A. Short, Swansea, in the chair, conducted the devotional exercises.

Mr. Short gave an admirable address on "The Value of Discipline in Training for Citizenship". He stressed the need and nature of discipline in the home and the school and closed by referring to the good work of the Juvenile Court.

It was moved by Mr. G. A. Jordison, and seconded by Mr. D. D. Smith, that Mr. Short's address be published in the Report of the Proceedings. (Carried.)

Miss Jean G. Smith presented the subject of "Hot Lunches in the School." A very interesting discussion followed in which Dr. Sinclair and others took part.

The Conference expressed its appreciation of Miss Smith's excellent presentation of the subject and requested that her address be included in the Report.

The next speaker was Dr. S. B. Sinclair, of Toronto. Briefly, but comprehensively, he addressed the teachers on "Consolidated Schools" showing the progress which had been made in establishing such schools in the United States and Manitoba and the advantages to the teacher, the child and the parent.

Mr. D. Grant Anderson of Laura Secord School, East Toronto, read a carefully prepared paper on "Nature Study—the Recognition of the Individual Tastes of the Teachers and the Environment of the Child". He was requested to allow it to appear in the Report.

At the close of the discussion upon the subject of "Rural School Boards", it was moved by Mr. Jordison and seconded by Mr. Smith, that, in the opinion of this conference, the interests of rural education could be served best by making an Inspectorate the unit of school administration, and that the above resolution be handed to the Committee on Resolutions. (Carried.)

The following representatives of the Rural School Teachers were duly elected:—

Chairman, John Drury, Belfountain.

Secretary, D. Grant Anderson, East Toronto.

Director, Miss Jean G. Smith, Brampton.

The meeting then adjourned.

JOHN DRURY,

Secretary.

PRIMARY TEACHERS' CONFERENCE.

WEDNESDAY, APRIL 7TH, 1920.

The Primary Teachers met in Room 8.

The meeting was called to order at 9.15 a.m., Miss Mary Agnes Rowe, of Brockville, in the chair.

Miss Ethel M. Hall conducted the devotional exercises as in a Primary Class, and it was an inspiration to all.

As the minutes of last year's meeting had been printed, they were taken as read and confirmed.

The following resolution of last year was reaffirmed:

"That pupils be admitted to the Primary Grade only at certain stated periods of the year—September, New Year, Easter."

The following committee was appointed to adopt such steps as would have the proposal approved by the Department and incorporated in the School Law and the Regulations: Miss Helen Wilson, Brampton; Miss Emily Snider, Toronto; Miss Ethel McCardie, Toronto, and Miss Jessie Bruce, Sault Ste. Marie.

"The Morning Story," which dealt with a phase of the life of Joseph, was then taken by Miss Bessie J. Smart, of Brockville.

Miss M. Isabel Wilson gave an interesting talk on "Essential Matter for a Primary Class," with a view to simplifying the present curriculum.

Miss Lilian M. Bishop, of Brockville, was unable to be present, but she sent her paper on "Material for Hand Work in a Primary Class." It was read by the chairman, Miss Rowe.

In the open discussion on: "Is the Kindergarten Course Necessary as a Separate Unit in our Schools, or Should the School Course begin with the Kindergarten Primary in both Urban and Rural Schools," Dr. John Noble, Rev. Mr. Powell, Mr. Wm. Houston, Principal Chas. G. Fraser and Miss Lilian M. Dent, took part.

It was moved by Miss Jessie Bruce and seconded by Miss Ethel M. Hall: That the Primary Teachers Conference expresses its appreciation of the work of the Kindergarten and believes that it should be retained in its pure form, the Kindergarten Primary to be an extension of it and not a substitute. Carried.

The following officers were elected:

Chairman..... Miss M. Isabel Wilson, Toronto.

Secretary..... Mrs. Ida H. Langford, Toronto.

Director..... Miss Elsie M. Smith, Sault Ste. Marie.

Executive Committee.

Miss Lilian M. Dent, Toronto.

Miss Christina Howie, London.

Miss Bessie J. Smart, Brockville.

Miss A. Grace Tucker, Belleville.

The meeting then adjourned.

(MRS.) IDA H. LANGFORD, *Secretary*.

FEDERATION OF WOMAN TEACHERS' ASSOCIATIONS OF ONTARIO.

WEDNESDAY, APRIL 7TH, 1920.

The annual meeting of the Federation of Women Teachers' Associations of Ontario was held in West Hall, Toronto University, on the above date, the President, Miss Evelyn Johnson, London, in the chair.

The meeting was opened with singing "Oh God Our Help in Ages Past," after which all united in repeating the Lord's Prayer.

The minutes of the last annual meeting were read and confirmed.

The President, Miss Johnson, in a brief address outlined the possibilities of the F.W.T.A.

The Secretary-Treasurer, Miss Bertha Adkins, St. Thomas, gave a report of the progress of the Federation for the year.

The total membership is now over 5,000. There are 75 local societies affiliated with the Central Federation. Since the organization of the Federation over 5,000 articles have been sent to the press throughout the Province.

FINANCIAL STATEMENT, 1919-1920.

Receipts.

Balance on hand, April 23rd, 1919	\$148 84
Fees and donations	414 29
Interest	2 90
Total	\$566 03

Disbursements.

Stationery and supplies	\$ 20 82
Postage	45 05
Printing	73 75
Typewriter	65 00
Express on Typewriter	45
Rent typewriter, one month	3 50

Advertising	\$26 24
Honorarium to Secretary-Treasurer	100 00
Balance in Bank	215 61
Cash on hand	15 61
<hr/>	
Total	\$566 03

(There is a slight discrepancy between the number of members reported and the membership fees, due to the fact that, instead of a straight ten cent fee for all members, some of the large cities, contributed a grant, in return for which all their members are enrolled as members of the F.W.T.A.)

Alderman Mrs. L. A. Hamilton, of Toronto, gave an inspiring address on "The Teacher as an Active Citizen." True democracy should be co-operation between the conservatism and stability of the State and the initiative and progressiveness of the individual. We are free citizens only in so far as we use our freedom for the good of the State. Freedom means service. Service means training.

We must be trained to fight the enemies of democracy. One of these is the party spirit. We must combat social evils in our national life, and remove some of the stumbling blocks in the way of the children. We must get the idea of purity into young lives before it is destroyed. Housing and education are the two great questions of the day.

More women are needed in public life. We should seek out women who are qualified to act on public bodies, help to elect them to office, and support them loyally after they are elected. Do not let them feel that they stand alone. Let them know that we are with them. We must do our part and be live citizens all the year, and one hundred per cent. citizens on election day. We need to know the relation between our franchise and the national and municipal life. Any person having an income of at least \$400 can apply to be taxed on it and have a vote.

Each individual has a valuable contribution towards the public good of hand, or heart, or brain. The teacher's influence is a potent factor in the development of national life.

A hearty vote of thanks was presented to Mrs. Hamilton for her splendid address, and she was asked to allow it to be printed in the annual report.

Miss A. E. Marty, M.A., LL.D., Inspector of Public Schools, Toronto, gave an excellent address on "What We Owe to Our Profession and What It Owes to Us." Never before has the press been so active in urging adequate remuneration for teachers. This shows that there has been a public recognition of the fact that teachers have not been getting a living wage. Adequate pay to all is due the teachers. The principle of equal pay for equal work to men and women should be recognized and the preferred positions in the profession should be open to women on equal terms with men.

Better salaries give the profession greater prestige; increased remuneration means increased opportunity; increased opportunity means increased responsibility. We must raise the status of our profession from the inside. We must, at the same time, make a greater contribution to the community life. The mere class room teacher will soon be a thing of the past. Education is no longer limited to the walls of the school room. In the future, it will be more and more demanded of us that we link up our profession with the industrial life of the people.

We must understand educational problems. It is the part of a democracy that the teachers should evolve the educational system of the Province. The Government has called the inspectors into conference. In the future the teachers will be called in.

As teachers, we must be loyal to our profession and to our fellow-workers. It is most regrettable that many women teachers are apologetic as to their calling. The low status of the teaching profession, as compared with others, is largely to be attributed to the destructive attitude of the teachers towards their own work.

"The fault, dear Brutus, is not in our stars,
But in ourselves that we are underlings."

If the status of the teaching profession is to be raised, it must be through the loyalty and unity of its members.

The sincere thanks of the meeting was voted to Dr. Marty for her very able address, and she was requested to permit it to be printed in the report of the O.E.A.

The following resolutions were presented by the Executive Committee:

1. That the Federation of Women Teachers' Association apply for a Charter of Incorporation.

2. That the membership fees be:

Life Membership	\$10 00
Sustaining Membership	1 00
Annual Membership	25

3. That the Federation apply for affiliation with the National Council of Women.

4. That a duplicating machine be purchased for the use of the secretary.

5. That the secretary be granted an honorarium of \$100.

6. That the Federation request the Government to appoint a woman as Inspector of Household Science.

7. That this Federation stand for a minimum salary schedule for the Province as follows:

For assistant teachers holding permanent certificates	\$1,000 00
For first year interim certificates	800 00
For second year interim certificates...	900 00

8. That the Executive draft a schedule for Principals.

9. That the following amendments be made to the Constitution:

- (a) Clause 2 shall now read:

That the objects of the Federation be:

1. The formation of local Women Teachers' Associations for the promotion of the professional, literary and social interests of women teachers.
2. The promotion of the professional and financial status of women teachers.
3. To promote and foster a spirit of professional etiquette among teachers.

Members of the Federation shall be required to refrain from underbidding, from speaking slightly of other teachers, and to adhere to the salary schedule determined on from time to time by the Federation.

4. To stimulate public interest in our work by conducting educational propaganda through the press.
5. To formulate and direct any united effort on the part of the women teachers of the Province.
6. To co-operate with other bodies of organized teachers.

(b) That the immediate Past President shall be a member of the new Executive.

10. That the following additions be made to the by-laws:

(a) That the travelling expenses of the President and the Secretary-Treasurer to the annual meeting be paid each year by the Federation.

(b) Where possible, other members of the Executive shall be chosen from places having a local W.T.A., the local organization to pay the travelling expenses of such delegates until the financial position of the Federation warrant the payment of the same.

(c) That the expenses of the President or her representative be paid by the Federation to any special meeting that may be called from time to time to secure improved conditions for the teachers.

(d) That the Constitution may be amended at the annual meeting by a two-thirds vote of those present.

11. That when our finances warrant it, a paid organizer be appointed.

Moved by Miss Arbuthnot, Toronto, seconded by Miss Tait, Ottawa:

“That the resolutions recommended by the Executive be adopted.” Carried.

Moved by Miss Munro, London, seconded by Miss Pettit, Ottawa:

“That we request the Government to place a much stricter censorship on moving-picture and vaudeville performances, and that such censorship be under the control of the Education Department.” Carried.

After a very full discussion of the question of a Provincial Federation of Teachers, the following resolution was presented.

Moved by Mrs. L. L. Green, seconded by Miss Pettit.

“That we have separate Federations of men and women teachers, and that we co-operate by means of a central committee.”
Carried.

The following officers were elected for the year 1920-1921:

President.....Miss Evelyn Johnson, London.

Vice-President.....Miss Helen S. Arbuthnot, Toronto.

Secretary-Treasurer.....Miss Bertha Adkins,
11 Drake St., St. Thomas.

Representatives to the Executive Committee.

Miss J. Bruce, Sault Ste. Marie.	Miss M. Currie, Georgetown.
Miss C. R. L. Fisher, Sudbury.	Miss A. G. Hollinrake, Brantford.
Miss R. Jamison, Hamilton.	Miss E. J. Johnston, Hawkesbury.
Miss B. M. Pettit, Ottawa.	Miss I. Sharman, Goderich.

The meeting then adjourned.

BERTHA ADKINS, *Secretary*.



MINUTES OF THE KINDERGARTEN SECTION.

TUESDAY, APRIL 6TH, 1920.

The Kindergarten Section of the O.E.A. met in the Croft Chapter House of the University of Toronto.

Owing to the much regretted absence, through illness, of the President, Miss Grace Loucks, of Ottawa, Miss H. Heakes, Toronto, presided.

The meeting opened with the singing of the Kindergarten hymn and prayer.

The minutes of last year's meetings were taken as read, being published in the proceedings, and confirmed.

Miss Mabel Cunningham, of Ottawa, read a most instructive paper on "Clay Modelling for the Kindergarten," written by Mr. Arthur Crowson, Ottawa.*

A short discussion followed the reading of this paper.

The next item on the programme was the "Round Table Conference on Vital Kindergarten Problems," led by Miss Clara Brenton, who presented the views of the London Kindergartners in some of the most urgent needs for advancement of kindergartens in the province.*

In regard to the resolution mentioned in above paper it was decided to defer action until next meeting of the section, as also in regard to that suggested by the Ottawa Kindergartners respecting the re-establishment of kindergarten training classes in Ottawa this year.

Miss Hamilton, of Japan, gave a brief but interesting talk on Japan.

The meeting then adjourned.

WEDNESDAY, APRIL 7TH, 1920.

After the usual opening, Miss McClenaghan of Ottawa read a most interesting paper, written by Miss Wanless, Fort William, on "Methods in Teaching Kindergarten Music."*

* See address in full.

The next item was an address by S. A. Morgan, D.Paed., Provincial Inspector of Normal Schools, on the Status of Kindergartens. *

A discussion, following this valuable address, in which Misses Macintyre, Cody, Brenton, Dr. Putman and others took part.

The meeting then adjourned.

THURSDAY, APRIL 8TH, 1920.

The most important feature of the morning's session was the address by Professor Earl Barnes, Philadelphia, on "The New Measurement Tests and Kindergarten." *

The treasurer's report showing a balance of \$20.74 was then read and adopted.

Miss Dent, who was elected Kindergarten Representative to the Primary Conference, reported that a unanimous decision was given favoring the necessity of pure kindergarten training for children as a basis for education in our schools.

The election of officers resulting in the following:

President..... Miss Lillian M. Dent, Toronto.

Vice-President..... Miss Helen Gerrard, St. Thomas.

Director..... Miss Ellen Cody, Toronto.

Secretary-Treasurer..... Miss L. B. Williams,

Council—Misses Brenton, Buttery, Currie, Heakes, Harding, Meade, Macintyre, Scott and Savage.

This closed one of the most successful meetings of the section, with a membership of over one hundred.

(Miss) L. B. WILLIAMS, *Secretary*.

96 Jameson Avenue, Toronto.

*See address in full.

MINUTES OF THE HOME SCIENCE SECTION.

WEDNESDAY, APRIL 7TH, 1920.

The seventeenth annual meeting of the Home Science Section of the Ontario Educational Association opened in Room 8, Main Building, University of Toronto, at 2 p.m., on Wednesday, April 7th, 1920.

A joint meeting was held with the Hygiene and Public Health section, when Dr. C. M. Hincks, gave an interesting paper on "National Aspects of Mental Hygiene," showing the problem which confronts Canada in dealing with citizens below the average mentality. He outlined a plan which would wonderfully improve conditions, and insure, for the future, a better type of citizen.

Much interest was taken in Miss Emma Clarke's paper on "Work among the Mentally Defective from the Social Standpoint." *

Mr. S. H. Armstrong gave an address on "An Ideal School Equipment for Play, and How to Make the Most of it." The speaker gave a clear and comprehensive outline of the work taken with girls and boys in the organized playgrounds and in Toronto Public schools, in both Winter and Summer.

The members then visited the Housewifery Centre, at 16 Orde St., where there are departments in housewifery and sewing

THURSDAY, APRIL 8TH, 1920.

The meeting was held in Room 51, Main Building, University of Toronto.

After registration of members, the meeting was called to order at 9.45 a.m., Miss Prichard, the President, in the chair.

The minutes of the last meeting were read and approved, and the financial statement adopted.

Miss Ewing was appointed Press Reporter and Misses Smyth and McVannel, Auditors.

* See address in full.

The President, in her address,—“Household Science, its claim for a place on the Curriculum,” asked for a stronger spirit of unity, a higher standard of purpose and appreciation of the privilege of inspiring our Canadian womanhood to rise to the high ideal of true citizenship.

Dr. Alan Brown, although unable to be present, sent his excellent paper on “Malnutrition.”*

The Minister of Education, Hon. R. H. Grant, was unable to be present.

“Practical Suggestions in the Teaching of Clothing” was presented in a most interesting and instructive way by Miss A. E. Robertson, University of Toronto. Her many very fine examples of educational exhibits illustrating the process of the manufacture of textiles, the charts, pictures, picture postals and small looms would prove invaluable to those instructing in “Clothing.”*

Miss Ewing gave many helpful suggestions in the teaching of Household Management. She urged that house-management be put on a business basis, and that more time be spent in training the child to system in all branches of the work.

The Discussion—“Consideration of Examinations as a Standard in teaching Household Science in Lower Schools” was taken by Miss L. K. G. White, Woodstock and Miss Beulah H. Miller, Smith’s Falls.

Exceptionally fine reports of work being done in rural schools. Also exhibits of sewing were given by Miss Fife, Islington; Miss Shorey, Bloomfield; Miss Stewart, St. Catharines and Miss M. Meiklejohn, Sulphide.

New business was then taken up.

It was moved by Miss Ockley and seconded by Miss Smyth, that the General Secretary be communicated with *re* more adequate accommodation than that provided by Room 51, and always in the main building.

It was moved by Miss White and seconded by Miss McVannel, that this Association call the attention of the Department of Education to the fact that teachers have been set apart to teach sewing in the Toronto Public Schools who have not had special training for this work, and request the department to require that these teachers take a course qualifying them for the work.

* See address in full.

The nominating committee brought in a report which was adopted, the following officers being elected for the ensuing year:

President—Miss A. E. Robertson, Toronto.

Vice-President—Miss MacVannel, Peterborough.

Secretary-Treasurer—Miss Edna Park, University of Toronto.

Councillors—Misses A. L. Laird, L. L. Ockley, F. Prichard, E. Neville, L. K. G. White, N. Ewing and H. M. Wright.

The report from the committee appointed to consider changes in the curriculum was brought in.

It was moved by Miss Ockley, seconded by Miss Ewing, that a copy of the suggested changes in curriculum made by the Executive, be sent to all teachers engaged in Household Science in the Province, and that a date convenient for all be arranged to meet for discussion, and those unable to come be asked to send in a report.

The meeting then adjourned.

HELEN M. WRIGHT,

Secretary.

MINUTES OF THE TECHNICAL AND MANUAL ARTS' SECTION.

TUESDAY, APRIL 6TH, 1920.

The Technical and Manual Arts' Section of the O.E.A. met in Room 12, at 2.00 p.m., the President, Mr. Alfred Howell, in the chair.

The minutes of the meetings of 1919 were read and approved.

The President then launched directly into his subject "Model Drawing made Interesting." First, he showed how very important it is for every student to develop the ability to represent form. It teaches him to recognize and appreciate beautiful things, but that is not all. It develops a keen observation of all form, and it is this power to visualize which distinguishes the successful man in any walk of life.

By means of numerous graphic sketches in chalk and charcoal, he showed how the forms of mostly all common objects can be developed from those of the cube and the sphere; so that in teaching the simple models, he would show how these are related to numerous other forms. Thus, from a drawing of the cube, in angular perspective, the student should be able, easily, to develop the form of an open box, a cross, flight of steps, a solid letter, etc.

After some discussion in regard to parallel perspective, Mr. J. R. Seavey, of the Hamilton Normal School, explained to the section a new colour chart he had designed. An expression of opinion was requested, but it was thought advisable to leave the matter over till Thursday, so that further thought could be given to it.

WEDNESDAY, APRIL 7TH, 1920.

So much interest was being taken in an exhibit of Art and Manual Training work arranged around the room that it was difficult to get the meeting started on time—2.00 p.m.

Mr. S. W. Perry read a very instructive paper on "Some Useful Books on Art." He advocated some books because they

stimulated thought as,—“Psychology of Drawing” by Fred C. Ayer, Professor of Education, University of Oregon, published by Warwick and York, Baltimore, (\$1.50.)

“What is the relation that exists between ability in drawing and ability in other subjects?” This is one of the topics he discusses and concludes that a student who has ability in drawing, usually stands high in other subjects. “How Children learn to Draw,” by Walter Sargent, Ginn and Co., (\$1.25) is a very helpful book especially for Public School Teachers. “Elementary Art Teaching,” by Edward R. Taylor. Chapman and Hall, London, (\$2.00) is a book full of ideas, which are very frequently quoted.

“The Present Status of Drawing and Art in the Elementary and Secondary Schools of the United States,” by Royal Bailey Farnum, State specialist in Drawing and Handiwork, Albany, N.Y., Bulletin 1914. This is a report full of information of what work is being done in the United States.

In an article by Holmes Smith, Prof. of History of Art, Washington University, St. Louis, published 1910, he says that 15 years ago not more than 10 of the higher institutions of learning in the United States included Art as a culture study in the curricula. To-day an estimate shows that about 50 institutions in the Middle West alone are giving College Art instruction.

“The Appeal of the Picture,” by F. C. Tilney, J. M. Dent & Son, London, (\$2.00).

“Picture Study in Elementary Schools,” by L. L. W. Wilson, The Macmillan Co., (\$2.50).

Both of these are very useful books for teaching this part of the work. Another good book is,—“One Hundred Masterpieces of Painting,” by R. C. Witt, Methuen & Co., London.

Some useful books of reference are,—“Drawing and Design for Craftsmen,” by R. S. Bowers, Cassells and Co., London, and “Composition” which is familiar to most teachers.

This was followed by a splendid address by Miss A. Grocock, of the Technical School, Toronto, on “Pottery.” She showed how it originated, what lines of development it had taken, and the various methods in use to-day. She explained how the articles were glazed and by means of a few chemical formulæ she demon-

strated on the blackboard the necessity for using exact proportions to secure a proper glaze. In the same way she showed the possibilities of obtaining new colour combinations.

From the numerous pieces of pottery on display, she made selection, to illustrate the colour described. It gave one a great incentive to try the art of modelling one of the various little vases, to hear her describe how easily they were made.

A demonstration was then given showing how a potter's wheel is used. But very little time was taken up in discussion as the Section adjourned to attend the Reception at Government House.

THURSDAY, APRIL 8TH, 2 P.M.

Mr. C. M. Manley in his address on "Illustration," entertained and instructed all who could crowd into the small room, in his delightfully droll manner. He reminded us of the time when we were young, how we all enjoyed looking through picture books. Long before we could read, we could tell the whole story in the book, from what we saw in the illustrations. To-day it is the illustrator who is the successful artist, for he finds ready sale for all his work, but to be successful as an illustrator, vision, imagination and ideas are very necessary. Without these the result is poverty stricken. He described the artist as a hard-working citizen but of the happiest disposition. When other people are bored to death with nothing to do, as at a summer resort or at a railroad depot when waiting for a delayed train, the artist finds the time much too short, there are so many interesting subjects all around him for his sketch book. Considering how much we all owe to the cause of art, Mr. Manley deplored the lack of interest in it by the cultured classes. The teachers he thought, should unite together as most all other workers have done, to assert their rights.

The second paper was by Mr. James C. Coles, Brantford, on "Manual Training from a Shop Worker's Point of View." He considered that Manual Training is too limited in its scope. The father is not satisfied with the course because the boy cannot make little repairs about the house.

In former times the boy learned how to make many useful articles with the axe and the pocket knife. To-day there is too much machinery in use for one to get any practice in making furniture. Mr. Coles considered that it would be better practice in Manual Training to have the boys learn to use other common materials as well as wood, such as,—cement, iron, steel, etc.

Why should the boys not learn in school how to make repairs about the house. He considered that there was too great a difference between school work and shop practice, for after leaving school, the boy finds that it is with the greatest difficulty that he can adjust himself to the conditions under which he must work in the factory or the shop. Boys would be greatly attracted toward railroad life if they saw a locomotive engine being assembled.

After some discussion on Manual Training methods, Miss Ridgeway, of Ottawa, gave a very brief but most interesting description of "Stripwood Work." She showed how simple an equipment is necessary,—some prepared wood strips, carboard tacks, a small saw and a tack hammer. It has the advantage of interesting boys in school work when they have lost all regard for books. They learn to make a tiny chair, then a table to go with it, other pieces of furniture are made till a house is completely furnished. The lads soon become so enthusiastic about the work that they prefer it to holidays.

Before the session was brought to a close the question of sending to the Education Department an expression of opinion in regard to the colour chart of Mr. J. R. Seavey, was brought up. After some discussion it was considered inadvisable to send any expression of opinion.

The officers were re-elected:—

Hon. President—Mr. J. S. Mercer, Woodstock.

President—Mr. Alfred Howell, A.R.C.A., Toronto.

Vice-President—Mr. A. N. Searrow, Toronto,

Secretary-Treasurer—Mr. T. W. Kidd, Riverdale Coll. Inst., Toronto.

Executive Committee—The above officers and Miss Laura Shannon, Brantford; Mr. John G. Graham, Toronto; Mr. E. Faw, Toronto.

Representative on the Board of Directors—Mr. Alfred Howell, A.R.C.A.

The meeting then adjourned.

T. W. KIDD,
Secretary.

MINUTES OF SPELLING REFORM SECTION.

WEDNESDAY, APRIL 7TH, 1920.

The Spelling Reform Section of the O.E.A. met according to announcement at 2 p.m., President, Professor D. R. Keys, M.A., in the chair.

Professor Andrew J. Bell, M.A., Ph.D., compared the origin and evolution of the Greek and Roman alphabets, the latter being the more ancient. He mentioned some of the difficulties encountered in the ancient spelling of the Romans and told how the reformers of that day overcame them. He used a poem of Catullus to show that its proper interpretation depended on knowledge of the peculiarities of Etruscan pronunciation reflected by the spelling. *

Professor A. Lipari, M.A., dealt with the "Spelling of the Romance Languages." Italian has few and unimportant anomalies in its spelling; Spanish has practically none. The Italian language has no word for "spelling." French is not so irregular as it seems to English students. *

John Dearness, M.A., exhibited and explained the new alphabet and reformed spelling recently adopted by the Chinese authorities by means of which learning to spell and read Chinese is a matter of hours instead of years.

Dr. J. G. Hunne, Dr. W. T. MacClement, William Honston, M.A., W. M. Metford, Dr. Arthur Beale, and others, participated in the discussion of these papers.

On motion of Dr. W. T. MacClement, M.A., the resolution proposed by Mr. A. W. Burt, B.A., and Mr. E. S. Hogarth, B.A., was re-affirmed. It was to the effect that in view of the fact that placing the authority of a spelling-book above that of the dictionary, or even adopting the abridgment of any dictionary to the exclusion of all other lexicographic authority tends to extinguish the investigating spirit of teacher and pupil;

* See address in full.

Therefore, be it resolved that a communication be sent to the Honorable, the Minister of Education, respectfully requesting a pronouncement from him as to whether or not teachers and examiners shall accept from pupils and students the simpler of alternative spellings recognized and authorized in the unabridged editions of standard dictionaries of the language.

It was pointed out that this measure of progress was only what Dr. Ryerson and the Council of Public Instruction had adopted in 1871-1874.

The President, Professor Keys, Dr. J. G. Hume, and Mr. William Houston were appointed a committee to lay this resolution before the Honorable Mr. Grant, Minister of Education.

The Secretary briefly reported what had been done during the year by the British and American Simplified Spelling Societies.

The officers for the year:—

President—Professor D. R. Keys, M.A., University College, Toronto.

Secretary—John Dearness, M.A., London, Ont.

Committee—S. Martin, B.A., Dr. J. Gibson Hume, M.A., W. M. Metford, Dr. W. T. MacClement, M.A., B. A. Cooper, B.A., Dr. D. A. Maxwell, M.A.

The meeting adjourned.

JOHN DEARNESS,
Secretary.

MINUTES OF THE HYGIENE AND PUBLIC HEALTH SECTION.

TUESDAY, APRIL 6TH, 1920.

The Hygiene and Public Health Section of the Ontario Educational Association met on Tuesday, April 6th, at 9 o'clock, the President, Dr. Wallace Seccombe, in the chair.

It was moved by Major Kirk, seconded by Dr. Phair, that the name of this Section be changed to "School Health and Physical Education Section," and that the Secretary of the Ontario Educational Association be notified to this effect.

The programme was as follows:—

TUESDAY, APRIL 6TH, 1920.

- 9.00 a.m.—Registration of members and delegates.
- 10.00 a.m.—Minutes. Communications and reports.
President's address.
- 10.45 a.m.—"What the Department of Education is doing for the Health of the School Child."—Dr. Fred J. Conboy.
- 11.30 a.m.—"The Physical Life of the School Child."—Dr. John Noble, Chairman Board of Education, Toronto.*
Education, Toronto.

AFTERNOON SESSION.

(Joint meeting with Public School Section in East Hall.)

- 2.15 p.m.—"Mental Hygiene in the Public Schools."—Dr. Eric Clarke.*
- 2.45 p.m.—President's address: "The Other Seventeen."—A. E. Bryson, Cobalt.*
- 3.15 p.m.—"Relation of Play to the Education of the Child."—Dr. D. Bruce MacDonald, St. Andrew's College, Toronto.*

* See address in full.

WEDNESDAY, APRIL 7TH, 1920.

- 9.00 a.m.—“Physiology in the School.”—Dr. O. C. J. Withrow.
- 9.45 a.m.—“Health Education in Rural Schools.”—Miss Browne, Director of School Hygiene, Saskatchewan.*
- 10.15 a.m.—“Education of Mental Defectives.”—Miss Marjorie Keyes, Canadian National Committee for Mental Hygiene.
- 10.45 a.m.—“Work and Play.”—Professor J. M. Artman, University of Chicago.
- 11.30 a.m.—“Preventive Dentistry.”—Dr. Wallace Secombe.

AFTERNOON SESSION.

(Joint meeting with Training and Household Science Section.)

- 2.00 p.m.—“National Aspect of Mental Hygiene.”—Dr. C. K. Clarke, or Dr. C. M. Hincks.
- 2.30 p.m.—“Work among the Mentally Defective from a Social Standpoint.”—Miss Emma Clarke, Department of Public Health Nursing Staff, Toronto.*
- 2.45 p.m.—“An Ideal School Equipment for Play and How to Make the Most of it.”—S. H. Armstrong, Director of City Playgrounds, Toronto.
- 3.30 p.m.—General Business. Resolutions. Election of Officers.

At the Session on Wednesday, April 7th, the following officers were elected:—

Hon. President—Dr. Wallace Secombe.

President—Dr. O. C. J. Withrow.

Secretary-Treasurer—Fred J. Smith.

Associate Secretary-Treasurer—Chas. G. Fraser.

Representative to the Board of Directors—Dr. W. Secombe.

*See address in full.

Sectional Chairman—Dr. J. T. Phair.

Psychiatric—Dr. C. M. Hincks or Dr. Eric Clarke.

Dental—Dr. W. E. Willmott.

Nurses—Miss Ella J. Jamieson.

Physical Education—Major W. F. Kirk.

Moved by Dr. Conboy, seconded by Dr. Graham, that the new Executive take up the establishment of a new department of School Architecture and that the Executive Committee appoint a convenor for this section.

The following resolutions were passed and ordered to be forwarded to the Executive of the Ontario Educational Association:

1ST—RE CADET TRAINING:

That the syllabus of Cadet Training be revised and graded to permit thorough training, progressive throughout the boy's school life.

That training of Cadet Officers and N.C.O's. be provided in special classes, with recognition by certificate leading to Militia qualifications.

That refresher courses for cadet instructors and all male teachers be provided.

That this training in the public schools be allotted a definite time in the school programme and be made compulsory.

That the signing of the Cadet rolls be dispensed with in public schools in favor of a principal's certificate that the Cadet is in good standing and has performed training.

That ranges be installed in every school where possible and rifle practice be given to every boy 12 years of age, or over.

2ND—RE PHYSICAL TRAINING:

That physical tables be limited to twelve tables.

That public institutions, particularly those dealing with children, be placed under one department, and that adequate health services be established in these institutions.

(a) That this section of the Ontario Educational Association urge upon local bodies the appointment of nurses, physicians and dentists in all districts of this province.

(b) That the Provincial Government be urged to see that the provincial organizations along these lines be strengthened.

That educational films, charts, etc., be made available by the Department of Education to the Public Schools of the Province.

The visit of Professor J. M. Artman, of the University of Chicago, was much appreciated, especially his address of the evening of Wednesday, April 7th, on "Education Through Directed Play."

FRED J. SMITH,
Secretary.

THE ONTARIO FEDERATION OF HOME AND SCHOOL ASSOCIATIONS.

Report of First Annual Meeting, 1920.

Three sessions were held during the convention. On Tuesday afternoon there were about eighty present to hear reports from delegates. This meeting was held in Room 33 in University College. Wednesday morning's session was held in the lecture room at the Lillian Massey School of Household Science, in conjunction with the lecturers of the Women's Institutes. Rural school problems were discussed at this meeting. Through the kindness of Miss Madill groups of children from Brown School, Toronto, gave a delightful exhibition of folk-dancing in the gymnasium and Miss Skilling demonstrated the use of the gramophone for teaching an appreciation of music.

On Wednesday afternoon the session took the form of a fireside gathering in the cosy reception room of South Hall, one of the women's buildings connected with Victoria College. Future plans and ideals for the work were discussed.

All the sessions were marked by an optimistic feeling regarding the great possibilities of service that lie ahead of Home and School Associations. The opinion was expressed by not a few delegates that one of the strongest forces for educational progress in Ontario had been initiated in the Federation of Home and School Associations. When its work becomes better known, as it will be when the hundred or more delegates speak of it abroad, there should be rapid growth.

At the noon hour, Wednesday, a very delightful luncheon was arranged with Professor Artman, of Chicago University, and Professor Carl Barnes, of Philadelphia, as guests. Professor Artman gave an inspiring address on the significance and need of activity and self-expression in all processes of education that aim at socialization of human groups.

The 1920-21 Executive.

President—S. B. McCready, Toronto.

Vice-Presidents—

Mrs. W. J. Carson, London, (Home and School Councils).

Mrs. Wm. Todd, Orillia, (Women's Institutes).

Mrs. A. C. Courtice, Toronto, (Women Trustees).

Mrs. B. Reece, Birchcliffe, (Rural Teachers).

Miss Cherry, Toronto, (Urban Teachers).

Miss A. E. Marty, M.A., LL.D., (Inspectors).

Miss L. K. Sirrs, M.D.C.M., (Medical Inspectors).

Mrs. S. T. Medd, Peterborough, (Parents).

Treasurer—Chester B. Hamilton, Toronto.

Recording Secretary—Mrs. Harris McPhedran, Toronto.

Corresponding Secretary—Mrs. Alex. MacGregor,

22 Lytton Boulevard, Toronto.

Representatives.

Teachers:

Miss Jean Austin, New Toronto.

Miss Senn, Brantford.

Miss Beatrice Mackenzie.

R.R. St. Catharines.

Inspectors:

Mr. A. L. Campbell, Weston.

Dr. J. H. Putman, Ottawa.

School Nurses:

Miss Ella J. Jamieson, Toronto.

Miss A. E. Durham, Welland.

Children's Libraries:

Mrs. C. Cameron, St. Catharines.

United Farm Women:

Mrs. G. A. Brodie, Newmarket.

Mrs. H. L. Laws,

130 King St. E., Toronto.

Trustees:

Mrs. M. R. Morris, Peterborough.

Mrs. Tanner, London.

Dr. Caroline Brown, Toronto.

Women's Institutes:

Miss Sutherland, Toronto.

Miss Mary Pearson, Merriekville.

Mrs. R. V. Fowler, Perth.

Mrs. James Patterson, Gad's Hill.

Parents:

Mrs. Newton McTavish, Toronto.

Mrs. H. T. J. Coleman, Kingston.

Mrs. John Hodge, Brantford.

Mrs. C. W. Adams, St. Thomas.

Mrs. Robt. Crosbie, Everett.

Mrs. I. H. Siegel, Toronto.

Mr. John Graham, Birchcliffe.

Mr. Thos. Bengough, Toronto.

MINUTES OF THE LEAGUE OF THE EMPIRE SECTION.

WEDNESDAY, APRIL 7TH, 1920.

The League of the Empire Section met on Wednesday, April 7th, at 2.30 p.m., in Room 59, University College, the President, Principal Hutton, in the chair.

The Secretary reported that over 10,000 children have this year applied for a correspondent through the Comrades' Correspondence Department which is now working actively in all the provinces of the Dominion.

A report on the Exchange of Teachers and the Imperial Conference of 1912 was presented by Dr. E. A. Hardy. Arrangements have been made by which Canadian teachers who wish a year's experience in England, may secure an exchange with an English teacher, under the auspices of the League of the Empire.

The long-deferred meeting of the Imperial Union of Teacher's Associations will be held in Toronto, in August, 1921. Full particulars will be available by the Easter meeting next year.

It was moved, seconded and carried "that the present officers be re-elected for the ensuing year."

Mr. T. B. Gleave, late of the League of the Empire, London, England, then gave us a most interesting talk on "The Teacher's place in the Scheme of Empire," which was much enjoyed by those present.

Principal Hutton then read a delightful paper on "Gladstone and Disraeli" to the intense enjoyment of the members.*

The meeting adjourned at 4.20 p.m.

List of Officers:—

President—Principal Hutton, LL.D., University College, Toronto.

Vice-Presidents—Col. G. T. Denison, James L. Hughes, LL.D.

Secretary—Miss F. M. Standish, 643 Euclid Ave., Toronto.

Treasurer—Mr. H. J. Baker.

Secretary for Canada—Mrs. H. S. Strathy.

FLORENCE M. STANDISH,

Secretary.

* See address in full.

*MINUTES OF THE COLLEGE AND SECONDARY
SCHOOL DEPARTMENT.*

TUESDAY, APRIL 6TH, 1920.

The College and Secondary School Department met in the West Hall, Toronto University, Mr. A. P. Gundry, of Galt, presiding.

The minutes of the session of 1919 were taken as read and approved.

The President spoke briefly. He deprecated the present day tendency to criticism, often unjust, of our school system. A review of the past 30 years showed great improvements in buildings and equipment, in teaching, in standards and scholarship.

The Public School course should be shortened. Pupils should enter High School sooner. Language study could then begin earlier.

The chairman then introduced Hon. R. H. Grant, Minister of Education.

Mr. Grant agreed with the chairman, that criticism was easy, but often unjust. The educational system of this Province was too great an organism for drastic treatment. Any changes should be gradual, and made only after careful study. He assured the teachers of his sympathy and co-operation.

The President then reminded the meeting that this year, a High School man was to be chosen as President of the O.E.A. On his suggestion a nominating committee was formed, consisting of Messrs. Mayberry, Overholt, Houston, Auld, Prof. Robertson and Prof. Alexander.

Prof. McNaughton, of Toronto University, then read a paper on "Some Educational Fallacies." At the conclusion of this paper the nominating committee made their report, suggesting the name of Mr. James Davison, Guelph, as President of the O.E.A. for 1920-21.

WEDNESDAY, APRIL 7TH, 1920.

The Second Session of the Department was held in the West Hall of the University, on Wednesday, April 7th. Officers for the coming year were elected as follows:—

President—Prof. J. C. Robertson, Victoria University.

Vice-President—W. J. Salter, B.A., Woodstock.

Secretary—J. D. Morrow, B.A.,

Humberside College Institute, Toronto.

Directors for 1920-21.

Modern Language Section—Prof. F. C. A. Jeanneret, Toronto.

Natural Science Section—L. H. Graham, M.A., Toronto.

Classical Section—John S. Bennett, B.A., Toronto.

Mathematics and Physics Section—Charles Auld, M.A., Tilsonburg.

English and History Section—W. E. Hanna, B.A., Toronto.

Commercial Section—Wm. Ward, B.A., B.Pæd., Toronto.

Continuation School Section—Geo. A. Clark, Drayton.

High School Principals' Section—Geo. H. Reed, M.A., B.Pæd., Toronto.

After the officers had been elected, Mr. Salter moved, seconded by Prof. Robertson, that Prof. McNaughton's admirable paper of the preceeding day be printed in the "Proceedings."* Carried.

Prof. H. J. Crawford, of the Faculty of Education, Toronto University, then gave a paper on "The Case for Latin as a Matriculation Subject." The speaker delighted friends of the classics by the strength of the case he made out. The arguments he presented, the opinions he quoted from eminent men of many walks of life, opinions based on research and experiment, all combined to place Latin on a sure footing. At the close of this delightful address, Mr. Mayberry moved, seconded by Prof. Robertson, that it be printed.* Carried.

The next speaker was Brig-General C. H. Mitchell, C.B., C.M.G., C.E., LL.D., Dean of the Faculty of Applied Science and Engineering, University of Toronto, who spoke on "Applied

* See address in full.

Science Education in the Development of the Country." His paper was listened to with deep interest, coming as it did from a man the prestige of whose scholarship was enhanced by the brilliancy of his work on the Western Front.

Dr. W. N. Bell, of Paris, followed with a paper on "The Ontario High School, Past and Future." It says much for Dr. Bell that, even after such papers as those of Prof. Crawford and Gen. Mitchell, he still had an interested and appreciative audience.

Mr. E. J. Halbert moved, seconded by Mr. L. H. Graham, that the address of Gen. Mitchell be printed in the Proceedings. * Carried.

Moved by Prof. Squair that Dr. Bell's paper, also, be printed. * Carried.

The session then adjourned.

CHARLES L. BARNES,

Secretary.

* See address in full.

MINUTES OF THE MODERN LANGUAGE SECTION.

TUESDAY, APRIL 6TH, 1920.

The Thirty-Fourth Annual Meeting of this section opened at 10.30 a.m., in Room 11, University College, the President, Professor M. A. Buchanan in the chair.

The Minutes of the session of 1919, printed in the report of the proceedings, were taken as read and approved.

A letter was read from the Minister of Education acknowledging receipt of the resolution passed by the Section in 1919, asking for the appointment of a Commission to investigate the conditions under which Modern Languages are being taught.

It was moved by Prof. Will, seconded by Mr. Husband, that a committee of this section be appointed to consider the whole question of the teaching of modern languages in the schools of this province and to make such suggestions as may be deemed advisable. (Carried.)

A letter was then read from Mr. Anglin, Secretary of the Matriculation Board, asking that a committee be appointed to enquire into the suitability of the texts chosen in French and German for the Pass and Honour Matriculation examinations of 1921, and as to whether an adequate supply was available.

It was moved by Mr. Hogarth, seconded by Prof. Will, that a committee be appointed for this purpose, to be named by the President. (Carried.)

It was moved by Mr. Irwin, and seconded by Prof. Will, that in the opinion of this section it would be advisable that matriculation texts be chosen by a joint committee of members of the University Staffs and the High School teachers; that suitable editing be done, the expense of which should be met by the Department of Education, and that a suitable text in prose composition be prepared for use in the Middle School and Upper School. (Carried.)

The Chairman appointed Miss Conlin, Prof. Cameron, Mr. Husband and Mr. Goldstick as a nominating committee, and Prof. Morand and Mr. Irwin as auditors.

The President's address was then given by Prof. Buchanan, the subject being "Scholarship and the Modern Languages Teacher." It was moved by Prof. Will, seconded by Prof. Keys, that Prof. Buchanan's paper be printed in the proceedings of the Association, and that extra copies be distributed, if possible.* Carried.

Prof. Shanks, of Western University, then read a paper on "Anatole France."

Moved by Prof. Squair, seconded by Prof. Cameron, that the paper of Prof. Shanks should also be printed. (Carried.)

WEDNESDAY, APRIL 7TH, 1920.

The meeting was opened at 10 a.m., with the President in the chair.

The report of the nominating committee was presented and adopted. The following officers were declared elected:

Hon. President Prof. J. Squair, Toronto.

President H. W. Irwin, Toronto.

Vice-President Prof. J. E. Shaw, Toronto.

Secretary-Treasurer Prof. F. C. A. Jeanneret, University of Toronto.

Councillors Miss L. A. Barr, N. R. Gary, Miss J. Muir, Miss E. D. Odum, Prof. L. P. Shanks and L. R. Whitely.

Mr. Goldstick read a paper on "Standardized Texts for Modern Languages." It was moved by Prof. Squair, seconded by Prof. Cameron, that Mr. Goldstick's paper be printed.* Carried.

A paper was then read by Prof. Cameron on "Recent Criticism of the Teaching of French in Ontario." A general discussion followed in which Miss Bunnell, Miss Whyte, Mr. Hograth, Mr. Irwin and others took part.

Moved by Mr. Gray, seconded by Mr. Ferguson, that Prof. Cameron's paper be printed. (Carried.)

THURSDAY, APRIL 8TH, 1920.

The meeting opened at 9.30 a.m.

The President asked that the nominations for the two committees be made by the section instead of by himself.

* See address in full.

The following were then appointed to constitute the committee to consider the whole question of the teaching of modern languages and to make suggestions to the Department of Education: Prof. Cameron, Mr. Hogarth, Mr. Irwin and Prof. Needler.

The committee to deal with text-books was elected as follows: Prof. Buchanan, Prof. Cameron, Mr. Husband, Mr. Irwin, Prof. Lang, Prof. Squair and Miss Willson.

The auditing committee reported a balance on hand of \$268.81.

It was moved by Mr. Irwin, seconded by Mr. Husband, and carried: "That in the opinion of this section it would be advisable that a new French Reader be prepared."

The Secretary was instructed to forward this resolution to the Minister of Education, the Deputy Minister of Education, the Editor of Text-books, and the Secretary of the Matriculation Board.

It was moved by Prof. Ferguson, seconded by Mr. Husband, and carried: That in the opinion of the section the options of the Faculty of Education entrance examination should be changed so as to remove the present handicap under which French is placed. It was decided that the first committee appointed should deal with this matter.

It was moved by Mr. Husband and seconded by Prof. Ferguson, and carried: That in the opinion of the section the regulation by which prose passages for Honour Matriculation and Faculty Entrance examinations must be based on the High School French and German Readers, should be cancelled.

The Secretary was instructed to send a copy of this motion to the Secretary of the Matriculation Board.

Prof. Brovedani, of Queen's University, then read a paper on "*La réforme de l'enseignement en Espagne.*"

Moved by Prof. Cameron, seconded by Prof. Squair, that this paper be printed in the Proceedings.* (Carried.)

The section then adjourned.

F. C. A. JEANNERET,

Secretary.

* See address in full.

NATURAL SCIENCE SECTION.

TUESDAY, APRIL 6TH, 1920.

The Natural Science Section met on the above date in the Auditorium of the Biological Building, the President, H. M. Ayers, in the chair.

The minutes of the sessions of 1919 were read and approved.

On motion, J. F. Calvert, of London, was appointed Press Reporter. The President appointed Messrs. J. B. Turner, T. J. Ivey, and Dr. A. Cosens as a committee on the nomination of officers to report at the next session.

The first paper was delivered by the President, M. H. Ayers, on "Middle School Physics," in which were discussed some excellent and unique methods of teaching this important part of the curriculum.

The Secretary presented a somewhat lengthy report on letters received from a number of Professors of the Universities of Ontario in response to motions presented to them for the advancement of Research Work among Science teachers.

On motion of J. B. Turner and T. J. Ivey, it was decided that, while appreciating the value of Research Work among teachers, this Association does not find it possible to carry this work any further but that it be left to the initiative of the individual members.

Dr. Cosens, in response to a request for Research results gave additional investigations illustrated by slides on his work on "Galls," supplementing his already published work on this subject.

At a joint meeting with the Mathematical Section in the Physics Building, Professor J. C. MacLennan, in his usual able manner, dealt with "Recent Researches in Science" in relation to his work and that of others associated with him in Great Britain, during the war.

WEDNESDAY, APRIL 7TH, 1920.

The second session was opened by an excellent paper by Professor C. D. Howe, on "An Acre of Woodland—Some of its Problems" and was highly appreciated by the members.

On motion of Dr. Cosens and A. M. Patterson, it will be published in the Proceedings of the Association.*

Professor E. M. Walker gave a valuable illustrated lecture on "The Distribution of Terrestrial Life in Canada," which reviewed the various forms of animal and vegetable life found in the climatic zones of Canada.

The last paper of the session was a comprehensive review, by Dr. G. W. Miller, Provincial Geologist, of "The Empire's Mineral Resources." After dealing with the supply of minerals in various parts of the Empire the lecturer referred to Canada's monopoly of the nickel resources and the suitability of this metal for part of our national currency.

The treasurer's report showed a balance of \$108.56 on hand.

Report of the nomination committee was adopted, which was:

Honorary President.....Prof. C. D. Howe.

President.....Miss A. A. Boyd, Morrisburg.

Vice-President.....Mr. W. H. Tuke, Haileybury.

Secretary-Treasurer.....Mr. L. H. Graham,

68 Balsam Ave., Toronto.

Councillors—J. F. Calvert, A. D. Howe, G. H. Bielby, W. A. Jennings, Ed. Morrison, H. S. Rosevear.

L. H. GRAHAM,
Secretary.

—* See address in full.

MINUTES OF THE CLASSICAL SECTION.

WEDNESDAY, APRIL 7TH, 1920.

The Classical Section of the Ontario Educational Association met on Wednesday, April 7th at 10.30 p.m. In the absence of the President, Prof. G. O. Smith, through illness, the chair was occupied by the Vice-President, Mr. P. J. Robinson, M.A.

The minutes of the last meeting were read and approved.

The election of officers was then proceeded with and resulted as follows:—

<i>Hon. President</i>	F. C. Colbeck, B.A., Toronto.
<i>President</i>	P. J. Robinson, M.A., St. Andrew's College, Toronto.
<i>Vice-President</i>	Prof. W. S. Fox, Ph. D., Western University, London.
<i>Secretary-Treasurer</i>	John S. Bennett, B.A., Humberside Collegiate Institute, Toronto.
<i>Councillors</i>	H. W. Bryan, C. L. Barnes, Prof. De Witt, W. J. Salter, D. Breslove, W. R. McCamus, A. W. Dunkley and J. H. Mills.

The report of the committee *re* a Latin reader for Pass Matriculation was presented by the secretary; the report recommended, for prose reading, a modified version of Cæsar, but made no recommendations in the matter of poetical selections.

It was moved by J. H. Mills, seconded by C. L. Barnes: That the report of the committee be received and the committee relieved of its duties and that a special committee, consisting of Prof. J. C. Robertson, D. A. Glassey and the Secretary, be appointed to interview the Minister of Education and take steps for the preparation and publication of a Latin reader for Matriculation. The motion was carried.

Prof. J. C. Robertson then gave some particulars of the new pass Greek course established by the University, enabling students to begin the study of Greek after matriculation and also of the proposed honour course in Latin, Greek and French.

Prof. De Witt described the work being done by the recently organized "American Classical League," the object of which is to carry on a more aggressive campaign on behalf of classical studies in the field of education. The league has as its President, Prof. A. F. West, of Princeton University, and as its Vice-President, Prof. Paul Shorey of the University of Chicago, and has already issued a number of publications.

Prof. Bell then gave a very suggestive address on "An Unobserved Figure of Speech in Vergil." This figure, springing from the poet's desire for variety and surprising effects, was the use of a single name for an associated pair or, more especially, of the first and last for associated group of four, to stand for the whole group. In the opinion of the speaker, the recognition of this figure, holding for common names as well as proper, solved many difficulties in the Roman poets.

TUESDAY, APRIL 6TH, 1920.

The section visited the Royal Ontario Museum where Prof. C. T. Currelly delivered a very interesting lecture on the classical antiquities there exhibited. At the close of the lecture it was moved by Prof. De Witt, seconded by F. C. Colbeck. "That the Classical Section of the Ontario Educational Association place on record its cordial appreciation of the generosity of Mr. Sigmund Samuel and Mrs. Samuel in presenting to the Royal Ontario Museum, the collection of Greek and Roman antiquities. As an addition to the apparatus of the university, the teachers feel that the importance of this gift can hardly be over estimated; at the same time it will be a powerful stimulus to art throughout the city and province. This resolution is unanimously voted by the members of the Classical Section after devoting a morning session to a view of the collection."

A vote of thanks was also extended by the section to Prof. Currelly. The meeting adjourned.

J. S. BENNETT,

Secretary.

*MINUTES OF THE MATHEMATICAL AND PHYSICAL
SECTION.*

TUESDAY, APRIL 6TH, 1920.

The first session opened at 9.40 a.m. with the President in the chair.

The minutes of the previous meeting and the financial statement were read and adopted. The programme as arranged was then carried out in full.

The paper "Secondary Mathematics," by the President, W. L. Sprung, M.A., was ordered to be printed in the proceedings of the Ontario Educational Association. This was followed by an interesting plea for a "New Calendar" by G. E. Pentland, who showed how the year could be divided into thirteen months with the odd day of the ordinary year as a New Year's Day and the additional day of the Leap Year as an additional holiday. Several advantages of such a calendar were indicated.

The report of the committee on "Propaganda" was then presented by the Convenor, Mr. J. T. Crawford; the text of the proposed pamphlet was read and it was then duly moved and seconded and carried that the report of the committee be received and adopted; that the thanks of the section be tendered to the committee for its efforts, and that the publication and circulation of the pamphlet be left in the hands of the incoming executive.

The next number of the programme was given by Prof. J. C. McLennan, Ph.D., in the lecture room of the Physics Building. Professor McLennan gave a very illuminating account of many of the devices designed or perfected by himself and his assistants. These devices, intended primarily for the combatting of the submarine menace, have already proved of immense value to navigation and commerce in time of peace. The value of Scientific Research to the national life was most clearly demonstrated by the success attending these efforts. The thanks of the meeting were expressed to Professor McLennan by the chairman.

WEDNESDAY, APRIL 7TH, 1920.

The Wednesday session of the section began with the election of the officers for the ensuing year, resulting as follows:

<i>Hon. President</i>	Prof. J. C. McLennan, Ph.D.
<i>President</i>	C. L. Brown, M.A., Sarnia.
<i>Vice-President</i>	J. F. Ross, M.A., Seaforth.
<i>Secretary-Treasurer</i>	Charles Auld, B.A., Tillsonburg.
<i>Director</i>	The Secretary.
<i>Councillors</i>	G. R. Bocking, M.A., R. N. Merritt, B.A., R. Shaw, M.A., A. S. Zavitz, M.A., G. E. Pentland, M.A., Miss M. Fitch, B.A.

On the order for new business, Mr. S. Martin pointed out that the permission to use interest tables in the answering of questions on the Upper School Algebra papers was, in some cases, being interpreted to mean the use of such tables as would not require the student to understand the algebraic processes used. After some discussion, it was decided to instruct the Secretary to write the Department of Education, asking that the intention of the instructions in this particular be more clearly defined.

The remaining numbers of the morning's programme were then given.

Mr. G. V. Maclean presented, in most interesting fashion, many of the historic attempts to "square the circle."

Professor DeLury then gave his lecture on "Non-Euclidean Geometry," showing how a departure from the definition of parallel straight lines used by Euclid leads to new conceptions of space and measurement.

At the conclusion of the programme the Section adjourned.

CHARLES AULD,
Secretary.

MINUTES OF ENGLISH AND HISTORY SECTION.

TUESDAY, APRIL 6TH, 1920.

The fourteenth annual meeting of the English and History Section of the O.E.A., was held in Room 57, University College, on the morning of April 6th. Owing to the absence of both the President and Vice-President, the chair was occupied by Mr. J. F. Van Every.

On motion of Mr. G. M. Jones, seconded by Mr. Jas. Keillor, the minutes of last meeting were taken as read and adopted. The Treasurer's report was then presented and adopted.

The chairman gave an interesting report of the annual meeting of the National Council of Teachers of English held at Cleveland, which he attended as our representative.

It was moved by Mr. G. M. Jones, seconded by Mr. J. W. Charlesworth, that the report be adopted. (Carried.)

Mr. J. W. Charlesworth, of Guelph, spoke on "Some Aspects of the History Teacher's Work." He referred to the excessive burden of history that Lower School candidates were forced to carry and advocated a lessening of the course in that subject. Pupils should be encouraged to read outside their text-book. They should be guided to make their own notes and synopses.

Professor McNeill's paper on "Shakespearean Criticism" pointed out the foolishness and the insincerity of so many of the comments on the work of the great dramatist. While in no sense belittling Shakespeare's achievements, he criticized the attitude of blind idolatry that would have every line perfect and every word inspired. He pointed out that in nearly every case Shakespeare made use of older stories for his plots, that he wrote for the stage and not for twentieth century class-rooms, that all classes attended the Elizabethan theatre, and that the plots were essentially romantic.

It was moved by Mr. G. M. Jones, seconded by Mr. Jas. Keillor, that Professor McNeill's address be published in the annual proceedings of the O.E.A. (Carried.)

The chairman selected the following to act as a nominating committee for next year's executive: Messrs. G. M. Jones, J. A. Carlyle, Jas. Keillor and L. J. Pettit.

Miss Clifford, in her paper on "The Task of the Moment," emphasized the fact that an alarming percentage of our children showed some physical imperfection, or were under-nourished and weakly. She showed that under the Military Service Act, over fifty-two per cent. of the men called up were placed lower than category A. She laid stress upon the evil effects of over-work at school and the curtailing of the hours devoted to spontaneous play. She urged a sane reform in spelling, the introduction of the metric system, the removal of useless "rubbish" from our courses in school.

It was moved by Mr. W. E. Hanna, seconded by Miss Helson, that Miss Clifford's paper be forwarded by the Secretary to the Minister of Education. (Carried.)

The first session then adjourned.

WEDNESDAY, APRIL 7TH, 1920.

The second session opened at 9.30, with Mr. J. F. Van Every in the chair.

It was moved by Mr. Jas. Keillor, seconded by Mr. G. M. Jones that the Secretary write to the President expressing regret at his absence owing to ill-health and wishing him a speedy recovery. (Carried.)

"Grammar Nomenclature," a paper by Mr. J. D. Morrow, aroused a good deal of discussion. He referred to efforts being made in England and the United States to make the nomenclature of Grammar more uniform and pointed out that this was merely a preliminary step to making the nomenclature of all languages studied in the schools as uniform as possible to avoid the confusion now existing.

At the end of the discussion the following motion was introduced by Mr. G. M. Jones, seconded by Mr. Jas. Keillor:

Resolved, that the English and History Section of the O.E.A. endorse the movement to establish a uniform grammatical terminology, and urge the Department of Education to adopt one for Ontario, so as to simplify our study of English Grammar. (Carried.)

Miss M. M. Waddington, Ph.D., of the University of Toronto, read a thoughtful essay on "George Eliot." She pointed out how close to real life are many of her scenes and characters; how high and low mingle in her pages; how her philosophy of life permeates her work. Her delineations of women have been rarely, if ever, surpassed. In concluding her paper, she drew an interesting contrast between the works of Eliot and Hardy.

The subject "Composition Scales" was introduced by Mr. G. M. Jones, of the Faculty of Education, and it led to considerable discussion.

It was moved by Mr. W. E. Hanna, seconded by Miss Stewart: That this Section request that the Department of Education publish as a guide to teachers of Composition, a series of essays, from very poor to excellent, written by candidates at the departmental examinations, with the marks assigned, and that it indicate the general principles followed in the marking of them. (Carried.)

The report of the Literature Committee appointed last year was submitted by Mr. J. F. Van Every, who moved, seconded by Miss Stewart, that it be adopted. (Carried.)

The report of the Composition Committee appointed last year was submitted by Mr. J. A. Carlyle who moved, seconded by Mr. G. M. Jones, that it be adopted. (Carried.)

It was decided to publish the list of composition subjects in *The School*.

The report of the nominating committee was then submitted and carried. The executive for the coming year will be as follows:—

<i>President</i>J. A. Carlyle.
<i>Vice-President</i>Miss Kate Stewart.
<i>Director</i>George Malcolm.
<i>Secretary-Treasurer</i>W. E. Hanna.
<i>Councillors</i>Miss Frances Robinson, Miss M. J Wallace, S. G. Whitelock, Inspe- ctor I. M. Levan, Miss Katherine Steele, Miss M. N. Burris.

It was moved by Mr. G. M. Jones, seconded by Mr. Jas. Keil-
lor, that this Section again endorse last year's report of the History
Committee and authorize that the same committee continue its
work, adding to its numbers if deemed desirable. (Carried.)

The meeting then adjourned.

J. A. CARLYLE,

Secretary.

MINUTES OF THE COMMERCIAL SECTION.

The Commercial Section met in Room 19 of the Main Building, University of Toronto, on the morning of Tuesday, April 6th.

The President, W. M. Shurtleff, Kingston, occupied the chair.

The minutes of the last annual meeting were read and approved.

The following committees were appointed:—

Nominating Committee Miss S. Blyth and
R. H. Eldon.

Auditing Committee Miss G. M. Watterworth, and
W. Ward.

Revising Committee Miss R. B. Heather,
Miss A. B. Stone, and
D. M. Walker.

Press Representative ... T. N. Stockdale.

It was moved by Mr. R. H. Eldon, seconded by Mr. G. M. James: That whereas the Departmental Regulations make provision for the granting of the academic part of Public School Inspector's certificates to those who have completed the third year of a university specialist course, therefore the Commercial Section of the Ontario Educational Association request that the same provision be made for commercial specialists, who hold a degree in Arts, or who take the new proposed University Course in Commerce. (Carried.)

The President, Mr. W. M. Shurtleff, then gave an inspiring address advocating a better recognition of the function of the Commercial Teacher in our Secondary Schools. On motion, it was decided to publish this paper. *

Mr. P. McIntosh, Principal Shaw's Business Schools, dealt in an able and comprehensive manner with the New Bankruptcy Act. He noted that as soon as this Act becomes operative; a business man, in the interests of his own protection, would be forced to keep his books in an up-to-date manner. This paper is to be included in the minutes. *

Miss G. M. Watterworth spoke very briefly on "Our Future."

At the afternoon session, in the absence of T. W. Oates, the Secretary advocated the advantage of attending summer schools.

*See address in full.

A splendid address was then given by Prof. Skelton, of Queen's University on "University Courses in Commerce." Numerous questions, at the close of the address, indicated the interest it had aroused.

It was moved by Mr. Ward, seconded by Mr. Baird: That Dr Skelton's paper be incorporated in the minutes of this Section.* Carried.

Mr. W. G. Edward then outlined, very clearly, his method of teaching Typewriting. A class of girls from the High School of Commerce demonstrated the various features of the method.

Mr. W. Baird then conducted a class in Shorthand, showing how he dealt with this subject and emphasizing the importance of thoroughness and accuracy in the theory as being the surest way of attaining speed. Letters were then dictated at over a hundred words a minute and typewritten. These letters were then submitted to the Section for inspection.

The work submitted by Mr. Edward and Mr. Baird was practical and very instructive.

WEDNESDAY, APRIL 7TH, 1920.

Miss Shillinglaw, of Ottawa, outlined the scope and importance of the work carried on in Ottawa at the School for Higher English and Applied Arts. This School is conducted under the auspices of the Public School Board. All books and supplies are provided free of charge and there are no fees. At its inception the school had five Commercial Specialists, teaching the commercial branches.

Mr. F. P. Higgins, C.A., read a splendid paper on the "Profession of an Accountant." He sketched briefly the growth of the profession from Egyptian times up to its present day development. He pointed out that in modern conditions an auditor's duties were broader and more helpful than those of a detective. He pointed out that "audited and found correct" was no longer a complete and satisfactory account. A business man wanted more by way of detail and suggestion from an expert accountant.

On motion it was decided to include this paper in the minutes.*

* See address in full.

Miss L. E. Wickett appealed for a wider recognition of the importance of Commercial Work in High Schools. Difficulties were mentioned and Miss Watterworth and the President made helpful suggestions as to practical means of overcoming these.

Mr. F. Selway representing the Office Specialty Co., was then called to give an address on Modern Filing. Owing to the lateness of the hour he deemed it unwise to present the moving pictures, but held the interest of the Section for nearly an hour in a very able and instructive talk on the five different methods of filing. Mr. Selway illustrated his remarks by reference to a filing cabinet on display from the Office Specialty Company.

The report of the nominating committee was received and adopted. The following are the officers for the coming year:—

<i>President</i>	J. A. Ramsay, B.A., Toronto.
<i>Vice-President</i>	Miss M. Doherty, Windsor.
<i>Secretary-Treasurer</i>	G. M. James, B.A., LL.B., Deseronto
<i>Councillors</i>	Wm. Baird, Toronto; Miss E. Shillinglaw, Ottawa; W. M. Shurtleff B.A., B. Pæd. Kingston; Miss A. B. Stone, St. Thomas; D. M. Walker, Niagara Falls; Miss H. E. M. Weatherill, Galt.

Representative to College and High School Department and to the Board of Directors. W. Ward, B.A., B. Pæd. Toronto.

The meeting then adjourned.

J. A. RAMSAY,
Secretary.

MINUTES OF THE CONTINUATION SCHOOL SECTION.

APRIL, 1920.

The Continuation School Section met in Room 8, on Tuesday afternoon at 2 p.m. The President, H. E. Thompson in the chair. The attendance was small, but a very interesting discussion of Continuation School work took place.

President Thompson, in his address, introduced the following questions:—

“Continuation” School. He considered that this is a misnomer. It detracts from the prestige of the school and hinders the acquirement of apparatus. The schools are exactly alike and should be called by the same name, “High” Schools.

A Two-year Middle School Course. At present, the two years of the middle school are attempted in one year. This often ends in failure and is disheartening to the pupils. He suggested the following remedies:—(a) Give pupils full latitude and do not require them to take subjects not required for matriculation; (b) Teach only half of the Middle School subjects each year.

Text-book Supply. These cannot be obtained at present as they should be. A Provincial Book Room would be the best solution of the difficulty.

Teachers’ Federation. The movement was explained. The object is to present a united front and prevent under-bidding.

The committee that was appointed last year to wait upon the Minister of Education, reported that they were well pleased with the results. The question regarding High School Assistants’ Certificate had been accepted by the Minister and the objectionable clause has been removed from the regulations and the grants to Continuation Schools are likely to be re-adjusted.

It was agreed that we continue to present our grievances to the Department and ask that the regulations be amended as follows:—

(1) To permit Continuation School Principals holding High School Assistants’ Certificates to have a second assistant, without affecting their position.

(2) That successful teachers of the grade C. schools, who hold first-class grade B. certificates should be qualified for assistants in grade B. schools.

G. A. Clark, H. E. Thompson and A. E. Judge, were appointed to present the claims to the Department.

Election of officers resulted as follows:—

Hon. PresidentMr. J. P. Hoag, B.A., Toronto.

PresidentH. E. Thompson.

SecretaryG. A. Clark, Drayton.

Meeting then adjourned.

G. A. CLARK,
Secretary.

MINUTES OF THE HIGH SCHOOL PRINCIPALS' SECTION.

The Annual Meeting of the High School Principals' Section of the O.E.A. was held in Room 33 of Toronto University at 9.45 a.m., Wednesday, April 7th, 1920.

Mr. Arthur M. Overholt, M.A., Brantford, occupied the chair.

The following members paid the membership fee of 25 cents:—

J. E. Adams, Beamsville.	F. McNab, Milton.
J. G. Althouse, Oshawa.	Wm. H. T. Mooney, London.
C. Auld, Tilsonburg.	W. J. Morrison, Bowmanville.
C. J. Burns, Smith's Falls.	A. N. Myer, Niagara Falls Sth.
S. J. Courtice, Leamington.	A. M. Overholt, Brantford.
John H. Davidson, Newmarket.	Geo. H. Reed, North Toronto.
J. D. Dickson, Niagara Falls.	Geo. W. Rudlen, Sault Ste Marie.
Thos. E. Elliott, Sudbury.	
W. J. Fenton, Brampton.	W. J. Salter, Woodstock.
W. J. Flach, Pembroke.	S. Shannon, Bracebridge.
F. P. Gavin, Educational Department, Toronto.	G. A. Smith, Parkdale Collegiate, Toronto.
R. A. Gray, Oakwood Collegiate, Toronto.	W. H. Tuke, Haileybury.
H. H. Greig, Prescott.	J. B. Turner, Hamilton.
A. P. Gundry, Galt.	R. Whyte, Trenton.
T. Hobbs, Harriston.	E. E. Wood, Fort William.
A. J. Husband, Brockville.	D. T. Wright, Dundalk.
H. W. Kerfoot, Picton.	Wm. B. Wyndham, Oakville.
J. E. Marcellus, Madoc.	Arthur C. Voaden, St. Thomas.

The minutes of the previous meeting were read and adopted.

Before the programme was begun, Mr. Carey, Director of the Hamilton Conservatory of Music, was granted a few minutes in which to speak of the value of music as a study in the High School Course. He regretted very much that no opportunity of taking music had been given him in his high school course. At the recent Congress held at Philadelphia, he learned that Ontario was the only state on the continent in which there is no place for music in the school course. Yet music enriches the life by its refining influence.

The chairman approved of music in the schools, and was pleased to learn that a beginning had been made in Oakwood Collegiate, Toronto, and also in the Woodstock Collegiate. Mr. R. A. Gray was in favor of music in the school and stated that the installation of a first-class Edison Gramophone in his school was valuable in making the life of the pupil much the pleasanter.

The feeling of the Section in regard to the matter was that while music was a most desirable study, no addition could be made to the present over-crowded curriculum.

In view of the length of the programme, the chairman stated that he would have to be excused from delivering a chairman's address.

The first subject on the programme, "One Conception of the Problem of Education," was taken up by Dr. Miller, of the Department of Education.

The next speaker, Dr. Merchant, discussed the topic, "Some Tendencies in High School Education."

Mr. Gundry then presented his report on Principals' Salaries, making a comparison with those of men in other professions and also with those of managers, secretaries, superintendents and foremen in the Commercial and Industrial Institutions of the Province. He showed that High School Principals' salaries rank the same as foremen of shops, but much below those of secretaries, managers of banks or of manufacturing concerns. The other professions with similar training, experience and work received from two to five times the income of the High School Principal.

After giving his report, Mr. Gundry moved that the Section make an effort to have three things done: (1) That the requirements to obtain a Principal's Certificate be raised to ten years' successful experience as assistant-master; (2) That the qualifications of a Principal be raised by work after graduation, either a course in Pedagogy or one in some other Post-Graduate work; (3) That the Government be requested to pay the whole of the superannuation fee. A good deal of discussion, pro and con, took place, the feeling of the Section being opposed to the first two proposals.

Mr. Wilson and Dr. Pakenham strongly favored the Government's paying the whole amount of the superannuation assessment.

Senior Principal G. A. Smith thought that in view of the high cost of living, the maximum superannuation allowance might well be raised above one thousand dollars.

In regard to the first proposal, Dr. Mayberry was in favor of a period of five years of successful experience as assistant for qualification as Principal.

He moved and Mr. White seconded a resolution that the Government should bear the full cost of the superannuation of teachers.

This was carried by a vote of seventeen to two, and the Secretary was instructed to forward a copy of the resolution to the Minister of Education.

A motion by Mr. Gray, seconded by Mr. Take, that the excellent papers of Mr. Gundry, Dr. Miller and Dr. Merchant be published in the General Report, was also carried.

On recommendation of a Committee of Past Presidents, the following officers were elected for the next year:—

<i>President</i>	A. J. Husband, B.A., Brockville.
<i>Secretary-Treasurer</i>	George H. Reed, M.A., B. Paed, North Toronto High School, Toronto.
<i>Councillors</i>	Elmore E Wood, M.A., Fort William; W. B. Wyndham, B.A., Oakville; Geo. S. Johnston, B.A., Whitby.

The financial statement was then presented.

Receipts.

Balance on hand from previous year	\$24 60
Membership fees	8 25
	<hr/>
Totals	32 85

Expenditures.

Postage, etc.	4 50
Balance on hand	28 35
	<hr/>
Total	\$32 85

GEO. H. REID,
Secretary.

*MINUTES OF THE SUPERVISING AND TRAINING
DEPARTMENT.*

WEDNESDAY, APRIL 7TH, 1920.

The fifth annual meeting of the Supervising and Training Department met in Room 37, the President, Mr. N. McDougall, B.A., in the chair.

The business part of the minutes was read and approved, the rest being taken as read.

Mr. E. T. Seaton, B.A., Hamilton, was appointed Press Representative.

Messrs. Marshall, Seaton, Norris and Major Hamilton, were appointed a Nominating Committee.

In connection with the reference in the minutes to County Trustee Associations, Inspector Mulloy advocated smaller areas than counties, as the bodies were otherwise too large.

Inspector J. H. Smith, Stratford, reported the meeting of Normal Masters and Inspectors of south-western Ontario. The topics discussed at the meeting were the Public School Course of Study, which was held to be too extensive, Township Boards, Salaries and the Simplification of Reports.

Inspector Standing advocated an Association of the trustees of the Inspectorate; Inspector Denyes, one for the Township.

The regular programme was begun by the President's Address on "Educational Ideals." The wish of the Department was that the address should be printed in full in the Proceedings.*

The next topic was "The Qualifications, Duties and Opportunities of Normal School Librarians." The first speaker, Mr. Dearness, of London Normal School, spoke of the improvement in Normal School work by the recent appointment of trained librarians. One part of their work should be to select new books on the principle that twenty-five (25) copies of the best book on a subject are of more use than twenty-five (25) different books on the subject. Certain books at present in the library might also be discarded. The Librarian needed a knowledge of

* See address in full.

Pedagogies, so as the better to aid Normal School students to prepare lessons for teaching; and to teach them how to use reference books and how to handle supplementary reading.

Miss Gahan, Librarian of the London Normal School, followed. She enumerated the opportunities of the librarian—the training of a new generation of Canadian citizens in the use of Library tools, through the training given to Normal School students who, would pass it on to the children.

The Librarian could also assist Public School Teachers in professional reading by correspondence with them. There should also be a model library for a rural school in each Normal School.

The duties were stated to be (1) the training of Normal School students in the use of reference books, (2) the training of them in the use of books for study, (3) the training of them to know and appreciate children's literature. She also advocated the giving of credits for library work.

An interesting discussion on the topic by Inspectors Smith, Mulloy, Standing, Taylor, Gill, Johnson and Principals Radcliffe and Macpherson followed.

It was moved by Principal Dearness, seconded by Inspector Mulloy, that the Education Department be advised and respectfully requested to prepare a Librarian's register suited to the needs of rural schools, with a few pages of printed directions relating to the selection, labelling, charging, shelving and care of books, and with some blank pages suitably ruled for recording the taking out and return of books.

It was also suggested that books from Normal School libraries be sent out to teachers free of charge.

Then followed two interesting papers by Inspectors Standing and Taylor on "A Differentiated Course of Study and Series of Text-books for Rural Schools." Inspector Standing outlined a time-table for a rural school and suggested the combining of certain subjects in certain grades so as to eliminate practically one grade. History, for example, might be taken with Senior and Junior Fourth classes without repetition or overlapping by taking Canadian History in one year, and British History in the succeeding year with the combined classes. To be effective, such a scheme would have to be made province-wide by the action of the Department of Education.

Inspector Taylor discussed the arguments *pro* and *con* regarding different courses of study, text-books, teachers, inspectors, training schools, etc., for rural and urban schools. The weight of evidence and argument seemed against any possibility of separation of schools.

THURSDAY, APRIL 8TH, 1920, 9.30 A.M.

The Nomination Committee reported, recommending:

President.....F. F. Macpherson, B.A., Hamilton
Normal School.

Secretary.....M. R. Reid, B.A., Inspector for
North Frontenac.

On motion of Inspectors Marshall and Major Hamilton, the report was adopted.

A discussion was raised on the question of discarding the readers in Hygiene, Nature Study, etc., in favor of certain lessons to be inserted in the Public School Readers. This was handled by Inspectors Stevens, Slemmon, Dr. Maxwell and President McDougall.

In resuming the discussion of G. O. McMillan's paper, read last year, Inspector Taylor gave a fairly full account of the work done in Agriculture in his inspectorate. The subject seemed to be more popular in the urban than in the rural schools. The assistance of citizens interested in special branches such as poultry, and in the Horticultural Society were spoken of as very helpful.

Mr. McMillan supplemented his paper by a reference to the assistance offered by certain Industrial Corporations in the way of charts and slides, illustrative of agricultural topics. This sort of extension work should be enlarged and distributed through the Department of Education.

It was moved by Mr. Madill and Principal Dearness that Mr. McMillan proceed with negotiations to procure material for extension work in agriculture from industrial corporations.

Inspector Campbell then read his paper on "The Enforcement of Compulsory Attendance and the Advisability of Extending the Age Limit." His paper is to be published in full.*

*See address in full.

Interesting comment and discussion were contributed by Inspectors Kilmer, Slemon, Paterson and Principal Munro of Ryerson School, Toronto.

Dr. H. E. Amoss, Normal School, Hamilton, gave a very interesting account of the University of Vimy Ridge, in which he was engaged, for a time, on the teaching staff.

A summary of his papers appears in the Proceedings.*

The matter of selecting the papers to be printed in the Proceedings was left in the hands of the outgoing and incoming Presidents.

The meeting then adjourned.

F. F. MACPHERSON, *Secretary*.

* See address in full.

MINUTES OF INSPECTORS' SECTION.

TUESDAY, APRIL 6TH, 1920.

The meetings were held in Room 37, and were presided over by the President, Mr. C. W. Mulloy, B.A., Aurora.

The proceedings were opened by devotional exercises, led by Dr. Maxwell, of Windsor.

The following committees were then appointed. Nominating: Inspectors Conn, Lees, and T. A. Craig. Condolence: Inspectors Michell, Jamieson and Dr. Maxwell. Auditors: Inspectors Robinson and J. C. Smith. Press Reporter and Assistant to the Secretary: Dr. Slemon.

The following new members were then introduced: Inspector Gratton by Dr. Slemon; Inspector Wilson by Mr. John Ritchie; Inspector Mitchener by Mr. E. J. Corkhill.

The minutes of the previous meeting were adopted.

Mr. Jordan then placed his resignation as Secretary before the meeting, and on motion of Inspectors Michell and Ritchie, it was accepted with regret.

President Mulloy then delivered an excellent address on the Problem of the Rural School. The members desired that it be published in the Proceedings.

Dr. Secombe, President of the Dental College, extended a hearty invitation to the Inspectors to attend a banquet at the King Edward Hotel, to meet with members of the Oral Hygiene Committee, in order to confer re Dental Inspection of Schools. This was accepted with thanks.

Miss Skilling then gave a brief address on the value of phonographic material in the schools, desiring the co-operation of Inspectors in regard to the introduction of such into the schools.

A motion introduced by Inspectors Marshall and Garvin to the effect that steps be taken to secure the appointment of Inspectors and Teachers to take the Dominion Census of 1921 was disapproved by the Section.

A motion introduced by Inspectors Denyes and Fetterly that the Section hold a special meeting on Thursday afternoon at 2 p.m. to discuss matters that might properly be brought before the Minister of Education and other members of the Cabinet at the meeting called by the Minister for Friday evening at eight o'clock, was approved by the members of the Section.

AFTERNOON SESSION.

At the opening of the afternoon session, the members listened with much interest to a brief address of greeting by the Honorable R. H. Grant, the new Minister of Education.

A thoughtful and interesting address was then given by Inspector Conn on "A Better System of Administration for Rural Schools." Appreciative remarks and discussion followed.*

Inspector Tom then gave an illuminating address on the inspection of a rural school. At the conclusion of his address questions were asked and answered.

Meeting then adjourned.

WEDNESDAY AFTERNOON, APRIL 7TH, 1920.

The first order of business was the election of officers. The result was as follows:

President..... J. H. Smith, Stratford.

Secretary-Treasurer..... E. E. C. Kilmer, Brantford.

Councillors—For three years: Richard Lees, Peterboro.
W. J. Lee, 434 Brunswick Ave.,
Toronto.

For two years: G. C. McNab, Pembroke.
J. M. Field, Goderich.

For one year: Dr. E. T. Slemon, Ottawa.
J. E. Taylor, St. Thomas.

The financial statement was examined and approved by the auditors. The balance on hand, April 8th, was \$102.26.

The Report of the Condolence Committee:

Moved by Inspectors Michell and Jamieson and resolved:

That the Public and Separate School Inspectors desire to place on record their high appreciation of the personal qualities and professional efficiency of their late colleagues—W. J. Summerby and Henry Ward in their capacity as Public School Inspectors in the County of Prescott and the City of Toronto respectively.

* See address in full.

Their zeal, tact, urbanity and gentleness in the discharge of their difficult and onerous duties, endeared them to all with whom they were brought in contact, being dead they yet live and speak in the memories of those whose lives have been ennobled by their influence.

That a copy of this resolution shall be forwarded to their respective widows or nearest relatives, to whom we extend our sympathy in their sad bereavement.

(Signed) F. S. MICHELL.

THOS. JAMIESON.

D. A. MAXWELL.

A comprehensive and eloquent address on Consolidated Schools was then delivered by Dr. John Waugh, Chief Inspector of Public and Separate Schools. The story of the movement and the difficulties confronting it in Ontario were lucidly stated. At the conclusion of Dr. Waugh's address, Dr. Sinclair explained the method of making surveys in districts considering the question of consolidation.

Annual Reports were then discussed by Inspector Carefoot; and as a result, the following committee was appointed to go into the question with the proper officials of the Department of Education: Inspectors Carefoot, Paterson and Tom.

The next subject was "Inspectors' Salaries." Dr. Putman introduced the discussion. He stated that relatively the Inspectors were the worst paid educational officials in Ontario. As a result of the discussion Dr. Putman was appointed to the committee to bring the matter of better salaries before the Minister of Education and other members of the Cabinet.

An invitation from His Honor Lieutenant-Governor Clarke and Mrs. Clarke to attend a reception given in honor of the members of the Ontario Educational Association, led to the adjournment of the Section at this stage in order that members might be permitted to attend.

THURSDAY AFTERNOON, APRIL 8TH, 1920.

This was a special meeting called to consider problems connected with the Rural School in order that the views of the Inspectors might be set forth for presentation to the Minister of Education and his colleagues at a meeting called by the Minister, and to be held in the Parliament Buildings on Friday evening, April 9th. After discussion, the following resolutions were endorsed by the members of the Section:

That the Inspectors of Ontario in Convention assembled, after a careful consideration of the Rural School Problem, beg leave to call to the attention of the Premier and his colleagues the following conclusions:

1. That the greatest needs of our rural schools are more mature teachers, a greater continuity of service, and a larger proportion of male teachers.

2. That the present small schools with an average for the Province of less than twenty pupils make impossible, from an economic standpoint, the employment of adequately paid teachers, with the result that the greater number of our rural schools employ, as teachers, young and inexperienced women who give only a brief service.

3. That any permanent solution of the rural school problem can be brought about only through a proper system of consolidation of schools.

4. That in our opinion, the necessary and desirable consolidations of Ontario schools can be brought about only with great difficulty so long as we have in the Province thousands of small school sections, each more or less jealous of its powers of self-government.

5. That in our opinion the Government would be justified in bringing into operation a larger unit of administration.

6. That in our opinion the Ontario counties ought ultimately to become the units of school administration and that the support of elementary and secondary schools outside of towns and cities ought to be by means of a uniform tax rate levied throughout the county.

7. That the present Act governing the consolidation of schools should be amended to provide that a consolidated area approved by the Government shall become a consolidated school section on a majority vote of the ratepayers within this area.

The following members were appointed to present these conclusions to the Minister and his colleagues: Inspectors Putman, Standish, Paterson and McDougall.

On motion of Inspectors Jordan and Fetterley it was decided to ask the Government to fix the minimum salary of Inspectors at, at least, \$3,000 and the maximum \$4,000, such maximum to be reached by annual increases of \$200—past experience as an Inspector to be taken into consideration in regard to the time required to reach the maximum.

The following members were appointed to present the claims of the Inspectors in this regard to the Minister and his colleagues: Inspectors Power, Putman, McNab and Hamilton.

On motion of Inspectors Clarke and Snider it was decided to ask the programme committee to arrange for not more than one half-day for joint programme with the Training Department, in 1921.

Inspector Marshall gave notice of motion that, at the next annual meeting, he will move that the Constitution be amended so as to make the election of Secretary necessary at each annual meeting of the Section.

The Section then adjourned.

A. A. JORDAN, *Secretary*.

MINUTES OF THE TRAINING SECTION.

TUESDAY, APRIL 6TH, 1920.

The Training Section of the Ontario Educational Association met in Room 37 of the University of Toronto, on the above date. The registration for the session was the largest in the history of the Section, and reached a total of 43.

The meeting was called to order at 10 o'clock, the President, Dr. Karr, presiding. The minutes of the last session were adopted as published, and Messrs. White, McConnell and Sorsoleil were appointed a nominating committee.

Three excellent papers were read. The first by Dr. Karr, who prefaced his paper by paying a tribute to the memory of the late William Scott, former Principal of Toronto Normal School, dealt with some of the weaknesses of our present system of Teacher Training. Among these are inadequate academic preparation; lack of personal touch by the Normal School teachers owing to the large attendance; the tendency to extend and overburden the course because of the importance ascribed by each specialist on the staff to his own subject and the impossibility of following up the students after they leave the schools. One of the remedies suggested by Dr. Karr was an increase in the number of Normal Schools. The section requested that the paper be published in the Journal of Proceedings.

Mr. E. T. White's description of "The Historical Development of Ontario School Readers" was comprehensive and interesting and was freely illustrated by quotations. The discussion included "Murray's Reader," the "Irish National Series," the "Red Series," the "Ontario Series" and the books in use at present.

Mr. Edward's discussion of "Education from the Bergsonian Standpoint" was unique in character and was profusely illustrated by means of drawings and delivered in inimitable style.

WEDNESDAY AFTERNOON, APRIL 7TH, 1920.

The first period of this session was spent with the Hygiene and Public Health Section, when Dr. C. Hincks discussed the "National Aspect of Mental Hygiene."

Dr. Mark's paper on "Some Iron Standardized Teacher Requirements" was favorably received and discussed with interest. On motion the Section requested that the paper be published in the minutes.

Dr. Morgan dealt most comprehensively with the question of "Essentials in Teacher Training." On motion it was unanimously requested that this paper also be included in the minutes of the General Association.

At this juncture the meeting adjourned to give the members an opportunity to attend the reception tendered the Association by His Honour the Lieutenant-Governor of Ontario and Mrs. Lionel Clarke.

THURSDAY MORNING, APRIL 8TH, 1920.

The major portion of this session was spent in an animated discussion of Dr. Morgan's paper. The discussion was led by Mr. Prendergast and Dr. Pakenham and all present took part.

The hope was expressed that Messrs. Campbell and Ingall, who were unable to present their papers, would favor the Section next year. Mr. Campbell was prevented by sickness and the pressure of work, and Mr. Ingall gave up the time allotted to his paper to allow the members to attend the Lieutenant-Governor's reception.

The nominating committee presented the following report, which was adopted:

<i>President</i>	M. A. Sorsoleil, B.A., Toronto.
<i>Secretary</i>	H. T. J. Coleman, Ph.D., Kingston.
<i>Directors</i>	E. E. Ingall, B.A., Peterborough.
	H. G. Martin, B.A., Stratford.

The meeting then adjourned.

M. A. SORSOLEIL, *Secretary*.

MINUTES OF THE MUSIC SECTION.

TUESDAY, APRIL 6TH, 1920.

The members of the Music Section convened at 2.30 p.m. in Room 51, Mr. Alex. T. Cringan, Mus. Bac, in the chair.

After a few words of welcome, Mr. Cringan reviewed the progress of Public School Music, during the past thirty years, in the Province of Ontario, and gave a forecast of what may be expected in the future. He said: "Thirty years ago there were only two teachers of School Music in Ontario. Music was then regarded as a fad; but no longer is such the case. It is now regarded as on a par with Manual Training, Domestic Science, Physical Culture, etc., all of which have found place in our educational programme.

"The great need in those days was music books, and all work was of necessity placed on the blackboard—a most unsatisfactory way, as the song or study can scarcely be learned before it must be erased and afterwards it becomes only a memory exercise.

"In the Normal Schools music was not regarded seriously and indifferent teaching led to an indifferent attitude on the part of the student, which, in turn, led to the teacher declining to teach the subject. But conditions have changed. Now, music is as well taught in the Normal School as it is possible to have it, and the teachers going out are better prepared to take up the work and are willing to attempt it.

"The Great War has emphasized the value of music in life, and to none more than to the man returned from overseas. In Toronto Normal School, there are this year 90 of these men, and in the Faculty of Education as many more. These men appreciate the value of music and enter into the study of the subject with a real desire to be able to teach it in their schools. Who can measure the influence of these men, musically, upon the schools of this Province.

"In the earlier years, no encouragement was given this subject by the Department of Education. Now there is considerable, as is shown by the grants to Supervisors and Teachers of Music who have complied with the Departmental Regulations.

“But what are our greatest needs? First, County Supervisors. In this, Consolidated Schools, giving the advantages of City Schools, will help materially. The rural teachers need the assistance of a Supervisor as much as do the teachers of urban schools; and secondly, the subject definitely taught as a part of the High School Course. The future of music in Ontario lies in the Rural and High Schools.”

Mr. T. A. Brown, Ottawa, gave a very interesting and helpful paper on “Means of Arousing Interest in Music,” in which he enlarged on the Rural problems of Canadian life.

This was immediately followed by another paper “Two Outstanding Men and their Contributions to Methods in School Music,” by Mr. J. Bottomley, A.R.C.O., Normal and Public Schools, Stratford. In his paper, Mr. Bottomley dealt extensively with the work of Mr. T. P. Giddings, of Minneapolis, whose work in the preparation of material for Public School Piano Classes has attracted wide attention; and Mr. E. W. Newton, of Boston, Musical Editor for the publishing house of Ginn & Co.

The meeting adjourned at 5.10 p.m.

WEDNESDAY, APRIL 7TH, 1920.

Meeting called to order at 9.30, Mr. Cringan in the chair.

The meeting took the form of a Round Table in which the members entered into a lively discussion of “Methods in Voice Production,” led by Mr. Smith of Ottawa; “Methods in Part Singing,” led by Mr. Stares, Hamilton Normal School; “Methods in Song Interpretation,” led by Mr. H. Whorlow Bull of Windsor; and “Methods in Rhythm,” led by Mr. Bruce A. Carey, Hamilton Public Schools. This proved a most helpful session, nearly all the members offering suggestions which they had found helpful in the various divisions of the subject.

It was a matter of regret that “Modulations,” “Chromatics” and “Treatment of Tone Deaf” were not discussed owing to the inability of Mr. Percy, London; Miss Tedd, Toronto; and Mr. Wildgust, of North Bay, to be present.

WEDNESDAY AFTERNOON SESSION.

Session opened at 2.30, Mr. Cringan in the chair.

It was moved by Mr. Quantz, seconded by Mr. Hargreaves, that the minutes published in the Report of Proceedings be taken as read. (Carried.)

The Committee on Constitution reported that after consideration we accept the general constitution of the Association as concerning the music section. On motion of Messrs. Stares and Carey this was carried.

It was moved by Mr. Brown, seconded by Mr. Hargreaves, that the officers of this Section for 1920-21 be: Chairman, Mr. A. T. Cringan; Secretary-Treasurer, Mr. E. W. Quantz; Directors, Mr. Bruce A. Carey and Mr. Jas. A. Smith.

It was moved by Messrs. Stares and Rees that the elections be considered separately. (Carried.)

It was moved, in amendment, by Mr. Carey that Mr. Brown be President. Mr. Carey explained that he adhered to the principle that no officer should succeed himself. The amendment found no seconder.

It was moved by Messrs. Stares and Brown that in view of the present needs of the Section the President, Mr. Cringan, be re-elected. (Carried.)

It was moved by Messrs. Rees and Brown that the Secretary-Treasurer, Mr. Quantz, be re-elected. (Carried.)

Moved by Messrs. Rees and Hargreaves that the Directors be Miss Rannie and Messrs. Carey and Smith. (Carried.)

It was moved by Messrs. Brown and Smith and unanimously carried that, in view of the fact that the schools are closed during Easter week, the Music Trades Association be requested to take into consideration the advisability of having "Music Week" of the year 1921, during the week in which the schools celebrate Empire Day.

The meeting then adjourned.

E. GOETHE QUANTZ

Secretary.

MINUTES OF TRUSTEES' DEPARTMENT.

TUESDAY, APRIL 6TH, 1920.

The Thirty-fourth Annual Convention of the Public and High School Trustees of Ontario was held in the University of Toronto. After the registration of delegates, the President, Rev. W. M. Morris, Orangeville, began the proceedings of the session by taking the chair and called upon Rev. J. R. Bell to open the meeting with prayer.

The first business of the meeting was the consideration of the resignation of Mr. A. Werner of Elmira as Secretary-Treasurer. On motion of Messrs. Ormiston and Wright, it was resolved that on account of Mr. Werner's health, his resignation be accepted and a committee be appointed to draw up a suitable resolution with reference to his long and faithful service. The chairman appointed the following gentlemen on the committee: Messrs. W. S. Ormiston, J. E. Farewell, and Rev. J. R. Bell.

The Secretary read the minutes of the sessions of Wednesday afternoon and Thursday of the previous year and explained why they were not printed in the regular minutes of the Ontario Educational Association.

The following committees were then appointed:—

Auditors.....Messrs. R. D. Devlin and J. R. W. Todd.

Press.....Messrs. J. G. Elliott, Rev. J. R. Bell, and
Judge J. H. Scott.

It was agreed that the Nominating Committee and the Delegates to the Education Department be appointed at the afternoon sederunt.

Dr. E. H. Wickware was then asked to take the chair while the President delivered his address.*

On motion of Rev. James Buchanan and Mr. W. D. McLellan, the address was received and referred to a committee composed of Rev. J. R. Bell, Mr. W. S. Ormiston and Mr. W. D. McLellan, to report later.

Rev. W. M. Morris presented an account for \$9.50 for printing, which, on motion of Judge Scott and Mr. A. M. Johnston, was ordered paid.

*See address in full.

The Financial Statement was then presented by the Secretary-Treasurer, Mr. A. Werner.

FINANCIAL STATEMENT.

Receipts.

From General Association.....	\$100 00
From Membership Fees	114 50
Due Treasurer	73 10

\$287 60

Disbursements.

Due Treasurer	\$64 55
Paid General Secretary	30 00
Paid Railways Viseing Certificates	8 00
Paid Printing	20 50
Expenses of Legislation Committee	22 80
Paid Secretary-Treasurer as per Statement.....	141 75

\$287 60

Audited and found correct.

R. D. DEVLIN,
J. R. W. TODD,

Auditors.

April 6th, 1920.

The report of the delegates to the National Conference on Character Education was presented by Mr. J. G. Elliott of Kingston, one of the delegates, the other being the Rev. W. M. Morris.

This was a Conference for the consideration of the bearing of Canadian Education on character and citizenship. The idea originated in Winnipeg at the instance of Mr. W. J. Bullman, President of the Canadian Manufacturers Association. An active campaign was conducted over the Dominion to arouse public interest in the project, the result of which was that upwards of fifteen hundred accredited delegates of public bodies of all kinds assembled in Winnipeg, on October 20th, 1919, for a three-days' conference.

A programme bearing on the relation of Education to Character and Citizenship, with contributions from about thirty Canadian, British and American men and women, eminent in their respective fields, was carried out. It is inevitable that the contact of business men and educators in this great assembly will have a far reaching influence on all the factors that have a part in training the youth of our land for citizenship. The very fact that business men have financed such a movement for the creation of a higher type of character in our country constitutes a challenge not only to our schools but to our churches. As educators, let us take up the challenge and adjust our educational system to the conditions we face.

Mr. William Iverach of Isabella, Manitoba, Past President of the Manitoba Trustees' Association, being present, was introduced by the President. Mr. Inverach addressed the meeting.*

A lively discussion followed the address, during which the following information on educational affairs in Manitoba was given by Mr. Inverach:—

The Manitoba Government gives \$2,500.00 annually to the Manitoba Trustees' Association.

Manitoba has now one hundred Consolidated Schools. The taxes necessary to carry on the work of an eight grade Consolidated School doing High School work averages about \$30.00 per quarter-section over the grants received from the Government and municipality. Under the old arrangement the cost of education of a pupil was about \$55.00 a year and under the new system it costs about \$88.00 a year. This increased cost is compensated for by two or three years of High School work for which the pupil does not require to leave home.

On motion of Rev. James Buchanan and Mr. Smith, a hearty vote of thanks was tendered Mr. Inverach for his interesting and instructive address.

Mr. T. S. Kirby, of Ottawa, President of the Urban School Trustees' Association, who spoke relative to the formation of that Association, said: "Many problems face city School Boards which require more time for their consideration than is possible at a meeting such as we are holding to-day. We do not want the impression to be given that we are withdrawing from the Trus-

*See address in full.

tees' Association of Ontario. We still consider ourselves members of this Association and present to you, as I now do, a copy of the minutes of our meeting held in Ottawa, January 6th and 7th, 1920."

On motion of Rev. James Buchanan and Mr. John H. Laughton, the Trustees' Association received the report of Mr. T. S. Kirby, and resolved that the matter of a resolution *re* the Urban Trustees' Association be considered at the next sederunt.

Mrs. Groves from the Home and School Section visited this Department and extended a cordial invitation to visit them on Thursday, at 1 o'clock p.m., at Hunt's Tea-room, when Professor Artman of Philadelphia will give an address. It was moved by Messrs. Sims and Elliott "That we acknowledge the invitation extended to us by Mrs. Groves." Carried.

NOTICES OF MOTION.

(1) By Mr. McKissock and seconded by Mr. Walls: "That it would be in the interest of our Rural Schools if our Statutory Grant be increased from \$300.00 to \$600.00 for one-room schools, and from \$500.00 to \$1,000.00 for two-room schools, with the idea of assisting our poorer sections to keep up buildings and equipment on a fair comparison with the richer sections."

(2) By Mr. Bruce and seconded by Mr. Rowe: "That we, the committee appointed to take into consideration the consolidation of S.S. No. 6 and No. 16, Oxford County, would respectfully ask the Trustees' Association to petition the Provincial Legislature to appoint a competent school architect to render assistance to all school boards in the Province contemplating the consolidation of their schools."

(3) By Mr. Ormiston: "That I will introduce a resolution dealing with the constitution, time of meeting, etc., of this Trustees' Department."

(4) There was a letter from Mr. Flatt, Wiarton, requesting that the matter of teachers' salaries, during a term, be dealt with; also if a rate could be set for teachers in city, town and county schools.

The following Nominating Committee was named: Messrs. J. H. Laughton, J. G. Elliott, Dr. Wickware, Mr. Wood, Mr. McKissock, and Mr. Mistele.

The meeting adjourned at 5.00 p.m. to meet at 9.15 a.m., Wednesday.

WEDNESDAY, APRIL 7TH, 1920.

The meeting resumed business at 9.15 a.m., the President in the chair.

The minutes of the previous session were read and upon motion of Messrs. Johnston and Laughton were approved.

Rev. W. M. Morris gave a verbal report of the work done by the Legislation Committee during the year.

The Carleton County representatives reported that they were organizing a Local Trustees' Association in the county.

Representatives from Elgin County reported that they had a very successful meeting in their county, over three hundred trustees from different school sections in the country being in attendance.

It was moved by Messrs Laughton and Wood: "That the present Legislation Committee be retained in office and continue their work." Carried.

The Nominating Committee presented the following report:

President.....Judge Scott, Perth.
Vice-President.....R. J. McKissock, Hampton.
Director.....Dr. E. H. Wickware, Smith's Falls.
Secretary-Treasurer.....Rev. W. M. Morris, Orangeville.
Executive Committee—J. J. Mistle, Rodney; P. Hughes, Burgessville; S. E. Wright, Sudbury; W. Carter, Dunnville the Secretary-Treasurer to assume office when the proceedings of this meeting are completed; Rev Mr. Brown, Almonte; W. S. Ormiston, Uxbridge; Mrs. A. C. Courtice, Toronto; J. E. Harrison, Parkhill.

It was moved by Messrs. Laughton and Elliott: "That the report of the Nominating Committee be adopted." Carried.

Mr. A. J. Rostanee, of Essex Street Public School, Toronto, exhibited a miniature school building.

Dr. Caroline Brown and Dr. Noble, both of Toronto Board of Education, extended an invitation to any members, who wished, to visit two new schools of an aproved type, now under construction by the city, the members to be conveyed by motor.

The formation of County Associations was shown to be a grave necessity if the uplift of education in Ontario was to be far-reaching and the cause made effective. After a great deal of discussion by the members, the following resolution was moved by

Mr. Buchanan, seconded by Mr. Laughton: That the incoming Executive be instructed to carry out the policy of establishing County Associations in affiliation with this Association and to request the Government to give a special grant. Also to request county and municipal councils to give a grant for the purpose of carrying out this declared policy." Carried.

WEDNESDAY AFTERNOON SESSION.

The meeting resumed work at 2.15 p.m. with President Morris in the chair.

Mr. H. G. Hammond gave an address on "The Formation of a Canadian National Character." Mr. Hammond, who has had wide experience in the Boy Scout movement, referred to the very many advantages in bringing about an extension of the movement in Ontario. He dealt with a great many traits of character shown by the boy who received such training and gave instance after instance in actual proof thereof in the daily life of a Boy Scout. Mr. Hammond's address was listened to very attentively.

Mr. J. G. Elliott moved and Judge Scott seconded the motion: "That we, the members of the Trustee Department, earnestly desire to express our appreciation of the excellent way in which Mr. Hammond presented the subject of 'Boy Scouts' and that the appreciation of the members be tendered to him."

The motion was carried by the hearty applause of the audience.

The following motion was moved and seconded by Judge Scott and Mr. Elliott respectively: "That the Trustee Department endorse the 'Boy Scout Movement.'" Carried.

Messrs. Laughton and Robb tendered the appreciation of the members to Mr. Hammond, who replied that it was a pleasure to render any assistance in the carrying on of this work.

The Hon. R. H. Grant, Minister of Education, paid a visit to the Association and was most heartily received, the members rising to their feet and applauding. The Minister expressed his pleasure at meeting such a large body of men and women who are administrators of education throughout the Province. He told of his sincere desire to assist all those who are in any way interested in the education of the youth of our country. He showed how the

administration of that department of the Government for which he was responsible required the heartiest co-operation of all engaged in it, among whom were the Trustees of the Province. For this reason the Minister extended a cordial invitation to the members of the Association to consult with him on any questions belonging to the Department of Education.

The committee appointed to report on the President's Address reported as follows: "Gentlemen, this committee to whom was referred the President's Address, begs leave to report as follows: We congratulate our President on the high ideals set forth and would call your special attention to the following sentence in his address, 'This Association can render great service to Education in this Province if even the smallest municipality can be organized to meet in conference and these municipal organizations be vitally related to the Provincial Association.' This has already been done in Manitoba and Saskatchewan, and should be our immediate objective. We believe this should apply to urban as well as to rural communities."

J. R. BELL.

W. S. ORMISTON.

W. D. McLELLAN.

It was moved by Dr. Wickware and seconded by Mr. Elliott: "That the report of the Urban Trustees' Association be received and filed; and that this Association recommend to the Minister of Education that when calculating the cost per pupil at High Schools and Collegiate Institutes it shall include the interest on the value of the building and sites and that the same apply to Continuation Schools."

Mr. Ormiston's motion dealing with the time of meeting and constitution of the Trustees' Association was then taken up. A general discussion ensued which was entered into by a number of the delegates, and out of all the discussion the following resolution evolved:—

It was moved by Judge Scott, and seconded by the Rev. Mr. Sims: "That a special committee composed of Messrs. W. S. Ormiston, W. H. Wright, J. G. Elliott, M. M. Black and R. H. McKissock be appointed to consider, and report at the next annual meeting, upon the question of continuing this department as a branch of the Ontario Educational Association; and, if so,

what means should be adopted to stimulate its activity and increase the attendance. If the committee should recommend that a separate organization of the Public and High School Trustees be formed, they will also draft and submit a suitable constitution for its operation." Carried.

It was recommended that the other officers of the Association be included with the Executive Committee, and that they together form a committee to consider the question of establishing County Trustee Associations.

The Lieutenant-Governor and Mrs. Clarke having extended the members of the Association an invitation to a reception at Government House, the meeting adjourned sharp at 4 p.m., to meet on Thursday at 9.15 a.m.

THURSDAY, APRIL 8TH, 1920, 9.15 A.M.

The meeting opened at 9.15 a.m., President Rev. W. M. Morris in the chair.

The minutes of the previous two sessions were read and on motion of Messrs. Johnson and Hughes they were approved.

In reference to Mr. McKissock's notice of motion, it was moved by Mr. Buchanan and seconded by Mr. Johnston, that "The Provincial Trustees' Association places itself upon record as being in favour of a higher rate of salaries to be paid all teachers, and would earnestly urge upon Trustees' Boards the necessity of so increasing salaries as would make it possible for young men and women to give themselves to this very important service of the State." Carried.

It was moved by Mr. Bell and seconded by Mr. Hughes: That we approve of the Department appointing a general architect who will be available by boards for advice and information. Carried.

It was moved by Messrs. Sims and Elliott: That the Legislative Committee ask the Department of Education to give its commendation and endorsement to the Boy Scout and Girl Guide movement and kindred organizations. Carried.

It was moved by Messrs. Elliott and Ormiston: That the Secretary be empowered to write a letter to Mr. C. S. Birtch, our Past President, expressing our regret at his illness, our sympathy in his continued confinement, and the Association's appreciation of his careful and thoughtful helpfulness during many years as a member. Carried.

Messrs. Johnson and Graham moved: That we suggest that a sum of \$10,000 be asked from the Government for financing a propaganda for a general publicity campaign towards forming affiliated Associations in counties; and that the carrying out of plans be left in the hands of the Executive. Carried.

The committee appointed to prepare a resolution regarding Secretary Werner's services reported as follows:—

“To the President and members of the Ontario School Trustees' Association:

“Your special committee *re* resignation of Secretary Werner beg to report as follows:—

“Thirty-four years' experience has shown us that not only the success and progress but the continued existence of this Association depends largely on the promptness, tact and energy of its Secretary-Treasurer. During the thirty-four years of its existence the Association has been most fortunate in the selection of this officer. John Ball Dow, Esq., Barrister, of Whitby, filled the office for about eight years. He was in fact the founder or originator of the Association. The position was a great tax upon the time of this busy man. He held it until he was appointed President. Then, for about an equal space, Mr. George Aylesworth discharged the duties most efficiently until his ability and tact were utilized by the Immigration Department of Canada. He has since been sent overseas. Mr. A. Werner, one of the early members of the Society, was his successor, receiving the appointment in 1904; and the fact that during even war times this Society has gone on with its work and has such a large attendance in 1920, speaks well for his attention to his duties. We are sure the Association will regret that ill health and pressure of private business has rendered his resignation necessary. All of which is respectfully submitted.”

J. E. FAREWELL, *Chairman*.

W. S. ORMISTON.

On motion of Messrs. Ormiston and Farewell the report was adopted.

It was moved by Messrs. Robb and Elliott, that the names of Messrs. Bethel Croft of Maidstone, E. T. Howe of Windsor, R. D. Devlin of Cobalt, and Mrs. Williams of London be added to the membership of the Executive Board. Carried.

Rev. Mr. Buchanan addressed the meeting relative to the Social Service Council of Ontario, announcing that the President of the Trustees' Department had been named to represent that body at the session to be held May 11th and 12th, at the City of Hamilton.

It was moved by Messrs. Ormiston and Noble: That the Trustees' Department endorse the appointment of our President, Rev. W. M. Morris, and that his expenses whilst attending the convention be paid by this Association. Carried.

It was moved by Messrs. Scott and Elliott that the names of Messrs. Farewell and our President be added to the committee dealing with teachers' salaries. Carried.

Through the kindness of representatives from the Board of Education the members were permitted to inspect two new schools under construction by the City of Toronto. The architect, after first pointing out some of the most prominent and favorable features regarding the design, and pertaining to economy of construction and heating, the excellency of ventilation, and efficiency of its administrative qualities, etc., was asked a number of questions by the delegates and these were very satisfactorily answered. The members thanked the Toronto representatives for their very kind and thoughtful consideration in granting this favour.

The meeting resumed work at 11.20 a.m.

Mr. Robb's paper on "A Township Unit, or The Elimination of School Sections for Taxable Purposes" was heard.

It was moved by Messrs. Brown and McKissock: "That we have heard the report of Mr. Robb with pleasure and consider it favorably."

Messrs. Farewell and Baker moved that the usual honorarium be allowed the Secretary-Treasurer. Carried.

No single item on the programme of any of the previous sessions was more favorably received nor made such a deep impression as did the one when ladies representing the Home and School Section were introduced by Mesdames Boulton, Groves and Dr. Caroline Brown, who represented the Toronto Board of Education. Mrs. Courtie, whom we are always pleased to see, referred to the growth of the movement in this city and throughout the Province. The favorable impression made through its usefulness after its introduction into municipalities was a highly

commendable feature and greatly assisted its being readily approved of and adopted by other municipalities. The scope of this section is very far-reaching, for its influence is felt from the cradle to the grave. Moreover, they were extending their sphere in every direction. System and proper organization are most essential to its permanency. She stated that the speaker to follow her would deal with that phase of the work. Professor McCready, President of the federal body of Home and School organizations, then addressed the meeting. The Professor described the method by which municipalities proceeded in order to avail themselves of the opportunity to benefit by the Home and School Movement. He referred to its introduction by kind-hearted, sympathetic, and noble women whose heart went out in sympathy toward their more unfortunate sisters and came to their rescue; and from this step of kindness in rendering assistance it has grown to this great movement. That there is a great need of a bond of union between the Home and the School goes without comment and he believed the present movement coming at this particular time would render great help in bridging the present existing gulf. A letter addressed to him would bring full information by return mail to parties seeking any information as to ways and means. Mrs. Payne and Mrs. Masson, representing two local city units, gave a very interesting description as to how it affected the homes and the schools in the city. All progress in the world must have a safe and sure foundation laid, and upon this, society, as a whole, must depend for growth. The Home and the School were two very important factors therein. They should be in close touch with each other and the favorable opinion expressed in general of its success and its well-working toward that end were such as would recommend the adoption and introduction of it into every school in the Province.

On motion of Messrs. Buchanan and Elliott a vote of thanks was tendered the ladies for their visit and they were assured that the members were pleased to have them come and were glad to hear of the success which was attending their efforts. Carried.

A number of delegates spoke on the Home and School movement. Among them were Mr. J. G. Elliott, of Kingston, a member of the Board of Education, and Dr. Noble, Chairman of the Toronto Board of Education.

It was moved by Messrs. Buchanan and Johnston: "That the Executive recommend that we take steps to have the Home and School Section affiliated with the Trustees' Department.

After due consideration the members concluded that, owing to it not having been previously announced, they should lay it over and take no action at the present time.

It was moved by Mr. Elliott and seconded by Dr. Noble: That the President be asked to vacate the chair and that another member occupy it. This was done and the Chairman called upon the incoming President, Judge Schoot, of Perth, to occupy it. His Honour the Judge thanked the members for the honour bestowed upon him, and referred to the pleasant, interesting and instructive meeting just concluding and which, during its sittings, placed on record many needs of the day. He asked hearty co-operation during the incoming year, and hoped that by our united efforts great good would result.

Messrs. Buchanan and Johnston made the motion: "That this meeting owes a debt of gratitude to the officers and staff of the past year for their labours during the year which resulted in such a successful meeting. Carried.

The meeting closed by singing "God Save the King."

A. WERNER,

Secretary.

FINANCIAL STATEMENT.
ONTARIO EDUCATIONAL ASSOCIATION
1919-1920.

RECEIPTS.

Balance per audit, 1919	\$1,596 04	
Membership Fees	385 20	
Govt. Grant	1,400 00	
Bank interest	67 42	
	<hr/>	\$3,448 66

DISBURSEMENTS.

Expenses Convention, 1919	50 50	
General Secretary, salary 1919-20	200 00	
General Treasurer, salary 1919-20	50 00	
Report of Annual Meeting	58 35	
Fares, Board of Directors	75 10	
Fares, Discipline Committee	4 50	
Expenses, Salary Committee	774 20	
Delegate to Dominion Educational Association ..	107 55	
Printing, stationary	229 45	
Postage, express charges and telegrams	21 52	
Floral wreath, late treasurer	15 00	1,586 17
	<hr/>	
Balance on hand		\$1,862 49

WM. WARD,

Treasurer.

We, the undersigned auditors, hereby certify that we have examined the books and vouchers of the Treasurer and find them correct. The balance on hand at date is One Thousand Eight Hundred and Sixty-two dollars and Forty-nine cents (\$1,862.49).

JOHN DEARNESS,

S. NETHERCOTT.

*PRESIDENT'S ADDRESS.**EDUCATIONAL NEEDS.*

W. F. MOORE, PRINCIPAL, PUBLIC SCHOOL, DUNDAS.

Mr. Chairman, Ladies and Gentlemen,—I feel that a very proud distinction has been conferred upon me, by unanimously electing me to the important and distinguished position as President of this great Educational Association. I feel it is a fitting climax to long years of service to the cause of education. I thank you sincerely for the honour.

The theme of my address this evening is "Educational Needs." Their name is Legion and very diversified is their nature. I shall this evening speak only of what I know and understand—Public School matters. Doubtless a High School or a University man with different and wider vision would see many things I do not see; but I see enough and I have seen them for a long time, and unless we correct the troubles and weaknesses of the Public Schools these weaknesses will continue through the whole structure.

Schemes that served the purpose well fifty years ago are now effete and should be superseded by something new and better. There is no use of patching and mending—radical changes must be made.

The first need I shall mention is a rural need—and that is a Better Administration of the Rural Schools. I have had experience in them and,—the Three-Trusteed School is bad. It may have been good long ago, but even that is open to question. It is now, and always has been, a pernicious system. Instead of three trustees it usually is a board of one trustee who does the business, and the others agree with him. What should be substituted? Preferably a Township Board—one trustee elected locally for each school and as many other trustees as there are schools in the township. There should be a general levy over the whole township of at least \$800 for every teacher, and the remainder made up locally. There would then be little interest in the effort to keep down expenses, such as there is at the present time. I know there are many who do not like the township idea—they think

that little interest would be taken by those trustees who live in the South of the township, to the affairs of the Northern part. There may be a good deal of force in the argument, but we do not find that this is an actual fact with Township or even County Councils. I am not going to mention Consolidated Schools as I am not at all of the opinion that they would remedy the evil—I know that Dr. Cody thought that the remedy lay in this class of school. I have not been able to agree with him. And in the event of the Township Board not meeting with favour, I certainly would favour a Board of Five Trustees instead of Three. In the multitude of counsellors there lacketh not wisdom.

Next need is—A Substantial Legislative grant to that school where both school-house and grounds are kept in good order—and the withholding of any grant to that school where conditions are not good. Is it any wonder that country boys and girls who have, perforce, to attend these schools, where everything is sordid, squalid, and ugly, become in their own lives like their surroundings? Tennyson says “We are part of all we have ever met.” The cry of Back to the Farm will never be heard by responsive ears unless the cry calls up pleasant recollections of school life—unless those who have left the farm have sweet memories of the old school and companionships that were there formed in pleasing environment. There are some such schools but they are rare.

The next need is a Board of Sympathetic Trustees. By sympathetic, I do not mean sympathetic to a weak, inefficient teacher, who is a daughter of one of the trustees; or sympathetic to a teacher who is pretty and delightful—but whose work, she thinks, is done when four o'clock strikes—an hour that she has been looking forward to all day, because she knows that at that hour, a handsome young man with a new automobile is there to take her away for a pleasant spin. No, but trustees who are in sympathy with the progress of the school—trustees who frequently meet at this school to discuss what is the very best in the interest of the school—trustees who give words of encouragement (all too rare) to the young and ambitious teacher—trustees who are not afraid to make necessary expenditures. At a recent election in a rural district, one of the ratepayers said, “I move that Dave Lewis—the richest and stingiest man in the section be elected

trustee." No other nomination was made and Dave was, to his own great satisfaction, elected; and I can assure you that Dave's reputation for stinginess suffered not one whit while during his term of office, but they had a new teacher every year, each at a lower salary.

The next need is a Common Sense Curriculum. I have often wondered what idea was in the minds of those who prepared the School Curriculum. In the army there is, what is called, the chain of responsibility, which links the highest officer with the humblest private in the ranks. That is a good scheme. We all know that formerly the idea was so to closely cement the Public School, the High School, and the University that the three made one entity, and neither was complete without the other two. To my mind that scheme is bad, too little attention has been paid to the Public School—not by any means too much to the collegiates and universities. The Public School should be an entity in itself and the energies of our Educational Authorities should be centred on it. Not more than five or six per cent. of our boys and girls ever go any farther than the elementary school—then give the 95 per cent. a better chance than they have been having. I have sometimes thought that there should be two Ministers of Education—one for the elementary schools and one for Secondary and Universities.

The Public Schools should have good buildings, well equipped, the best teachers, with salaries that will keep them free from economic anxiety and sufficiently attractive to keep them in the profession. Peter Wright, at the great Educational Conference in Winnipeg last October, said—"Who of you, having a valuable and delicate machine in your factory would allow an awkward, inexperienced operator to take charge of it. How infinitely greater is a boy or girl to any machine." But I have wandered somewhat from my text—which is a common sense curriculum. Much talk is heard from those, who do not understand, about the crowded curriculum. Ask any ten of those who so complain, what they would drop and you probably would get ten different answers. If I were asked what I would drop, I would say, not one, no, not one, but I would materially change what each subject represents, and I would make these subjects

graspable by the ordinary child mind. I am satisfied that there is far too much stress laid on Arithmetic in our Schools. It is an overrated subject. Mr. Chairman, do you recollect the awful desolation of your soul when you were asked to subtract 3 acres, 120 sq. rods, 30 sq. yds., 8 sq. feet, 143 sq. in., from 5 acres, 100 sq. rods, 10 sq. yds., 2 sq. feet, 20 sq. inches—every term in the line below, but one, larger than the term above. The teacher spent a long time faithfully and fretfully teaching the square measure, and finally left it with the sickening sensation that the pupils did not understand it. Did any one of you ever do a question in square measure since you left school? Why not do this work by chains and links?

Tell me, will you, of what use are complex fractions? Absolutely useless! I made this remark to a Public School Inspector and he said "I think they are just lovely." He had a peculiar idea of art. Dr. Noble reads—I would like to have the opportunity of putting square measure—Complex Fractions, Recurring Decimals, Trains meeting and passing each other—Boats going up and down stream, True Discount, into Flavelle's Cold Storage there to remain till Gabriel's last trumpet would assemble all the Mathematical Professors who are guilty of these and other educational absurdities and consign them to that incinerator whose torments ascend forever and forever. Is there any objection to this principle—"That subject is most useful that is most used."—I think there can be none—What is most used? Language, of course. Then let language in all its forms be studied. The mind of the boy or girl up to 14 or 15 years of age has little reasoning power, but the memory and imagination are at their peak. Anything stored in the mind now will usually last as long as the mind endures. I am quite satisfied that just as much development of mind can be secured by the study of a piece of good literature as can be secured by the study of Arithmetical Problems. Do not understand me to say that Arithmetic should be set aside—not so—but let it be of a useful common sense nature—of a nature that will enable pupils to make all necessary calculations promptly, neatly, accurately, that is all. At this period of the child's life—when the memory is so good—let the child's mind be filled with the study of our beautiful literature, and have the memory stored with many literary gems. Now is the time for

music and good songs, for the study of the rules of health—for the practice of those exercises that tend to develop the body to its fullest and best. The strongest condemnation should be laid upon that course of study and those who are responsible—that tend to take the brightness out of a child's life. This is the time for laughter and good cheer—and shame upon any scheme that takes this birthright away from any child.—I have spoken in condemnation only of Arithmetic but the same remarks might easily be made applicable to several other subjects—namely, spelling which should be harmonized, and Geography.—Time will not permit me to criticize them. This absurd and useless condition of affairs will continue till the Department wisely asks those to prepare the text books who afterwards will have to teach them. Let Public School teachers prepare Public School books. That is reasonable, anything else is absurd.—Too long have the Public School teachers, tamely and submissively, submitted to use the books prepared for them by those who know little or nothing about Public School needs.

The next need I shall mention is that the Department take into their confidence experienced and successful teachers to help in the preparation of a School Curriculum and School books. I am glad to note that this is being done more and more. During the last two years I and others have been asked—note—have been asked, to wait upon the Departmental Authorities and we were asked our opinions in regard to certain matters—Dr. Cody, of sacred memory, frequently called us together and already Mr. Grant has called us into consultation more than once.

The next need is an Educational Gazette—a paper or magazine devoted to educational interests. The Department could make use of it in promulgating the annual information in regard to text books, supplementary readers—changes in the regulations, times of holding the various examinations, changes in the course of study. It would be a medium whose columns would be open alike to trustees and teachers—it could be eminently useful.

So far all the criticism has been of the Department—of the Trustees—Buildings—Text Books and Curriculum; but surely there is an Educational need in having a better esprit de corps among the teachers themselves. Many of them are simply holding

school—not teaching. Their lives are not beautiful—they have no love for their work—they have no affection for children—they are not honorable to their profession. I have heard it said, and there is much truth—that teachers are their own worst enemies—Let there be loyalty to the profession. Sincerity in our work—a desire to promote the interests of those confided to our care.

And lastly—There should be such change made in the statutes that on every School Board in urban centres a teacher should have the same right to speak as any other member of the Board—I think he should not vote—The trustees would object at first—they would think it an infringement of their prerogative but soon they would find that many points in regard to internal management could be easily made plain. Many teachers feel a sense of unfairness where they are harshly criticized with no opportunity for explanation or protection. Now, Mr. Chairman, I shall bring this paper, already too long, to an abrupt close. I know many will not agree with some of the *needs* presented—when they are older and wiser I think they will fully agree with all I have said.

ADDRESS OF WELCOME.

HON. R. H. GRANT, MINISTER OF EDUCATION FOR ONTARIO.

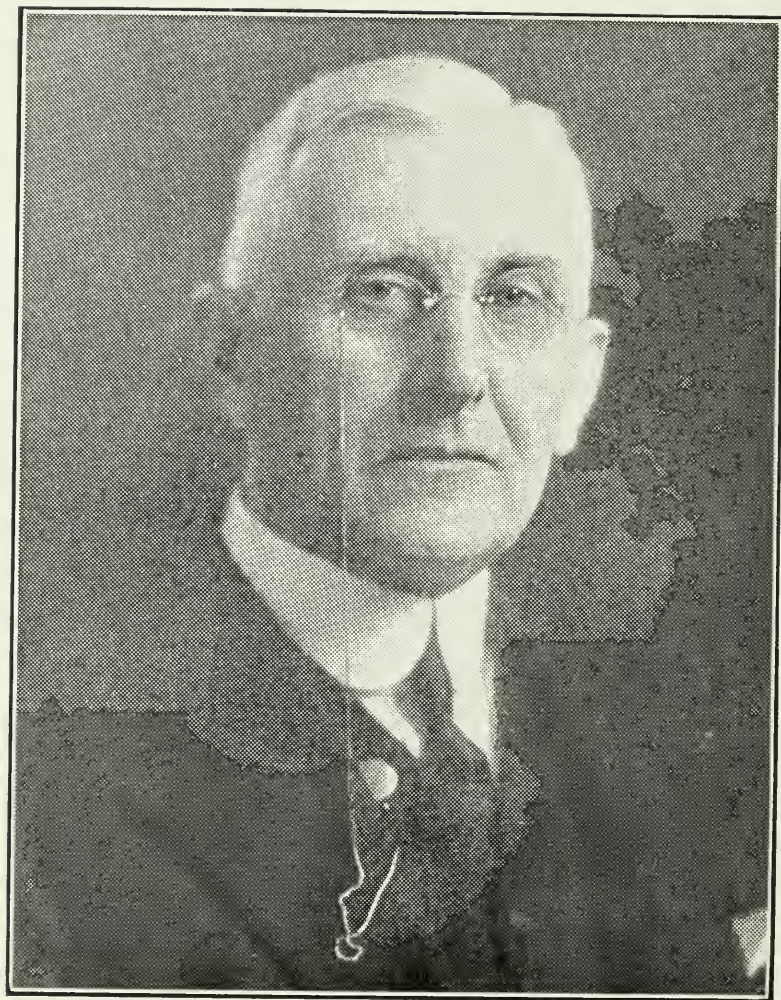
Mr. President, Ladies and Gentlemen,—I was very much inclined not to come here to-night at all. I have been endeavoring this afternoon to speak briefly to some of the sections and as the day went on I found myself getting even less able to do so, but I felt that even if I did not say anything of interest to you I should at least show myself and have the pleasure of seeing the members of the Ontario Education Association that would be assembled here to-night.

I also am deputed to express to you the Prime Minister's regrets that he could not also be present with you to-night. He would very much have wished to be with you, but it was quite out of his power to gratify that pleasure.

Mr. President, I feel that my place on your programme this evening is possibly one of those items that have to be disposed of before the actual business and pleasure of the evening begins—(laughter)—and consequently I have to be brief and rather formal. This will suit me admirably and under the circumstances I will certainly not take up very much of your time.

A few weeks ago I listened to a story; it was told by a clergyman about a clergyman—a clergyman who was on his way to the Far East and was ship-wrecked somewhere in the South Pacific Ocean, and after considerable hardships he managed to reach land. But he became very apprehensive and all he had read of and heard of the inhabitants of that section of the globe came into his mind and the nature of savages and cannibals. In making an inspection of where he was situated he heard voices coming from behind a clump of bushes and cautiously approaching in order to find out what the nature of that class of people were, he was amazed by the first words he heard and they were, "What in thunder did you lead the ace of spades for?" (Laughter.) He was so delighted that he threw up his hands and said, "Thank heaven I am among Christians!"

I am very, very pleased and thankful to-night to find myself among such congenial companions as the Educationalists of this great province, and as your Minister of Education—and let me just here say that I cannot find words to express to you the very great



HON. R. H. GRANT
Minister of Education for Ontario,

pride it gives me to realize the honor that has been done me by my Premier in appointing me to this distinguished position, and I am sure you will not think it is because I say it when I do say, I consider it second to none not only in this great province, but I consider that the portfolio of education for the Province of Ontario is second to none in this whole Dominion. (Applause.) As I daily realize the great responsibility and the great task that has devolved upon me on account of being placed in this position the more I feel I am dependent on you people, on the teachers and the inspectors and the earnest, tolerant, broad-minded generous men and women of this province who are so unselfishly and devotedly giving their time, their means and their energies to this great subject of education. It is to you I look for all that will be in my power to do for the education of this province. I feel without you my thorough inadequacy for the task, and I feel also that you will not fail me. I have always been interested in education and the more I see of it and the more I learn of my Department, the more interested I become, and I wish to place myself at the disposal of the educationalists in this province. Anything at any time, or any way that I can serve you, will be a great pleasure for me to do, I place myself absolutely at your disposal and, as your President said to-day, will do everything that I humanly can for the cause that we are all gathered here to-night to advocate.

I would like to say a word to-night and add my tribute of appreciation of my predecessor in office, the Hon. Dr. Cody. I do not hesitate for one moment to say that personally I regret very much that Dr. Cody did not see fit to continue to represent his constituency in the Legislative Assembly of this province. I feel that Dr. Cody would have been of very great assistance to me and to the educationists of this province, but would have added very materially to both dignity and prestige to the personnel of that body.

I do not feel that I can talk to you at any great length to-night and I feel greatly honored by being asked to say these few words of welcome. I am very grateful for the very cordial reception that you have tendered to me. Let me express the hope that for the few days in which you will be engaged in this city your meetings may be pleasant, interesting and in every encouraging for your task, not only while you are here together but that you may carry home with you renewed energy and courage for what you are all so keenly engaged in. I thank you Mr. President and Ladies and Gentlemen.

ADDRESS OF WELCOME.

PRINCIPAL HUTTON, LL.D., UNIVERSITY COLLEGE, TORONTO.

Ladies and Gentlemen,—I had better begin by saying what I ought to have said last night but owing to the lateness of the hour it was impossible, as you recollect, viz., that the President asked me once more—although it is now late to do so, in his name to welcome the Association to the lecture rooms of University College and to this Hall and other halls of the University. Of course we are more especially bound this year to welcome the Association because we are welcoming not only the Association but the new Minister of Education who was here last night. The administration of the previous Minister of Education was excellent and if the present Minister can maintain the standard all of us here in this Hall will be very grateful to him.

Now, I shall call your attention once more to the youngest of the sections of this Association—the youngest and the last, the League of the Empire, which is going to hold a reception at the conclusion of the programme. I presume we shall be received by the ladies of the League and I trust Mrs. Drury and Mrs. Grant also will be here and will be receiving in the doorway on the left and the refreshments will be served outside.

I would like to call your attention for a few moments to this League of the Empire. Every year we talk about it but really the League grows so fast that it is pretty hard to keep up with its progress. To begin with, we want you all to realize that the first meeting of all the Educational Associations of the Empire held outside London will meet in this city of Toronto in August, 1921. This was the meeting put off of course on account of the war, put off as long as 1916.

I would like to call your attention to some of the progress which has been made. This League of Empire is seeking, as you know, to bind the Empire together through such channels as we can use, viz., educational channels. That is to say, it is trying first of all—I had better take first what seems to me the most difficult and most remote object we had in view, but it should come first on account of its importance—we hope to secure ultimately the standardization of teachers' certificates so that teachers in any

part of the Empire, having reached a certain level of excellence and received certain certificates, could pass to any part of the Empire they liked and teach there for a year or more without beginning life afresh, without subjecting themselves to any further examination—merely on the strength of the certificates they had gained in Canada or in Great Britain or in Australia, etc. That was the object and I think that proposition should stand first.

Then the League, of course, also aims at drawing the Empire together by facilitating the arrangements for teachers travelling, for the reducing of expenses and for providing accommodation for the travelling teachers during the summer. I said to you last year, and it is now an accomplished fact, that the League was opening in London, not merely a reading-room, but a hostel where teachers of the Empire could not merely go in and read, but could find board and lodging, and that is I think now fairly accomplished.

Then the League lends itself to what is called Comrade Correspondence, to the starting of correspondence between the children of the different parts of the Empire, the children of Great Britain corresponding with children in Canada, corresponding with children in Australia, Australian children corresponding with Canadian children; either or both with children in South Africa and so on. And there are no less than 12,000 children, as we heard this afternoon from Miss Standish, 12,000 children in Canada engaged in some form of correspondence either with other parts of the Empire or—which is the last part of the work I was to speak of—or finally with children in other provinces of Canada, because that is our last and latest and, perhaps, most successful branch of activity. The children in this province are corresponding with the children of Quebec and Manitoba and Alberta and Saskatchewan, etc. Surely that is all just as it should be.

The development perhaps of the correspondence between Ontario's children and other children in Canada is more surprising than anything else; it has reached such figures already. That is very important surely, ladies and gentlemen, considering that Canada has often been said to be a very difficult country to govern because not a united country. Well, after all, I submit to you, that it will bear comparison even on the point of a disunited country, it will bear comparison with South Africa. It will bear comparison, surely, with the two Britains as the Romans used to

call them—the Great Britain and the Little Britain. It will bear comparison with the two Britains, ladies and gentlemen, even if it is a little disunited; and the development, then, of that inter-provincial correspondence in a country like this said to be disunited is a very promising and a necessary thing.

I suppose, perhaps, that some of you may have noted something in the best magazine which is published for the outer nations of the British League of Nations—I mean the Round Table. Possibly some of you may have noticed in the Round Table lately an article about the position of Canada in the Greater League of Nations—not the League of British Nations, but the new League of Nations of which Canada is a part. The Round Table remarks that Canada has apparently in a moment of emotion, without thinking much, in a moment of high spirits and generous fervor taken upon herself obligations to the League of Nations which she has never taken upon herself and, perhaps, never would have taken upon herself seriously and in cold blood and deliberately, to the much more obvious League of Nations and the much smaller League of Nations, namely, the League of Nations of the British Empire of which she has for years formed a part, and yet in connection with which she has never taken upon herself deliberately and in cold blood any specified obligations. She has always waited for the moment to arise to see what she would do. Now, says the Round Table, she has, illustrating the irony of history, taken lightly upon herself the obligations to a great and misty League of Nations which she has never taken deliberately to the League which is truly her own. She has strained at the gnat—she is still straining at the gnat—but she has already swallowed the camel. And the Round Table goes on to state that possibly Canada will be found afterwards, when she begins to reflect on what she has done, when she begins soberly to consider the obligations she has taken to the League of Nations, to hesitate; possibly she will want to withdraw again. Possibly she will desire to repudiate these obligations even as the nation to the south—although the League was started by her own President—has rejected the League and rejected the President and will have nothing to do with the League which, but for her own President never would have existed. That is rather a serious reflection, ladies and gentlemen, that we also in this country some day or other will

wish we had not begun to take on those obligations and will begin to think of repudiating them. I suppose it means that Canada will have in the future—if the Round Table is right at all—will have in the future some difficulty in steering a straight path between Scylla and Charybdis; I mean between the shiny, smooth and gleaming rocks of—what shall I call it—internationalism or cosmopolitanism or humanitarianism, or any name you choose, which represents that kind of democracy which, as the apostle says, has no natural affection, which does not care for its own country more than for any other, and has ceased to be patriotic; between the Scylla of internationalism and the Charybdis of a narrow nationalism.

If that is true and if this country depends for its safety upon avoiding shipwreck on either of those two dangers, who can help us so well to steer the ship through those two dangers as the teachers? Especially if the teachers are persons who know, as under these new systems we may hope they will, who know the Empire as a whole—who have been here, there and everywhere, who are no longer strangers in any part of the Empire and who speak to the children, not merely from books and reading, but from the personal knowledge derived from travel. Personal knowledge is doubly important in this age, surely, ladies and gentlemen, when we are no longer trusting to books and maps but so much more for educational purposes to photographs, pictures, lantern slides, to Canadian clubs—to all those very new methods of teaching of which our parents knew nothing. But the teachers of the future we may hope will command—after they have been able to travel and teach in different parts—they will command in addition to maps and books, they will command this other channel of information, that which is furnished by personal experience, by personal travel, by personal knowledge of the place of which one is speaking.

THE WAYS AND THE INTELLIGENCE OF OUR BIRDS.

JACK MINER, NATURALIST, FOUNDER OF THE POINT PELEE BIRD
SANCTUARY, KINGSVILLE.

Mr. Chairman—and I shall have to say, girls and boys—Girls and Boys, Ladies and Gentlemen, the thought comes to me, is it possible that this is the same Jack Miner that I knew as a boy, coming to Toronto to talk at an educational meeting. Oh, dear people, the responsibility comes down on me when I think of that, and how grateful I am to God in Heaven because I have the positive proof that it is His handiwork that has brought me here.

However, I, like one of the former speakers here, the Minister of Education, caught cold with the weather man a few days ago and I am hoarse. I have not had a good meal for two days—of course a good meal for a man from the woods. You know what it means.

However, I am here and I am thankful to be here to talk to you on the line I follow—on the value and intelligence of our birds.

I tell you people of Toronto, Jack Miner in the last five years has been in some of the biggest cities we have in America, been amongst some of the most distinguished men, but his heart never was touched deeper than it was when these dear little girls stood up and sang. So beautiful, that was all. It almost gave me a picture of my little girl to hear them sing. I thank you, girls.

However, I have to be careful; the birds are what I am here to talk about, not girls.

The question comes to you, who is Jack Miner—you have heard me mention that so many times, lots of you and when I think in looking into the audience and see faces that have stood the punishment for an hour or two of my talking to them, for five or six different times talking on this same subject, it makes me feel the responsibility more than ever. Well, who was Jack Miner. I started down in the State of Ohio, my parents are of Leicester, England. I was born in the State of Ohio. At the age of thirteen, I was brought from the best State in America and

liberated over in Essex County, Ontario, the best county in the best province in the world. There was a large family of us. We were very poor financially. There were ten of us, five boys and five girls. Father came a few months ahead in the spring of 1878, and built a log house. I have no proof of this, but brother said he boarded the gable ends up with elm lumber, the boards being a foot wide and he says they shrank an inch a year for thirteen years. I do know that we did not have to get out of bed to study astronomy. I had the advantage of the family because father always called me in the morning to build the fire, and therefore, I had the advantage, and many a time when they were asleep up in their beds—such a bedroom as it was—I have raked up a big handful of snow along the gable ends that had drifted in there and I would walk over and throw the snowballs in their faces and slide down the ladder. They soon understood that and would have their faces covered up. However, we got along fine. We cleared ten acres the first year and grew oats and corn and we had three meals a day—oatmeal, cornmeal and miss a meal. Lots of fresh air however. There was plenty of game in Essex County, lots of quail and partridges and wild ducks. My eldest brother and I started hunting for the market about the second year we were there; hunting for the market in order to get good warm clothes. As practice makes perfect, we two boys soon became expert shots. The result was we left a bloody trail behind us. But, thank God, we soon outgrew that practice and hunted for sport, and many a day out-of-doors recreation have we had with some of the best men the world ever knew. We kept two well-trained dogs, and we would go out for a day. Then come home at night and sleep a hole down through one of those straw beds and in the morning you are a new man. Your thoughts are new, and your eyes are more in focus for having a day off. As time rolled on, weeks into months, things changed. We keep a-growing if we are the right kind of men and we stopped hunting for the birds, we were hunting up in Northern Quebec for moose. My eldest brother and I had never been separated for ten days in our life. But we were separated in the twinkling of an eye; that caused me to study more than ever. He and I had positive proof that the birds knew us as their deadly enemies, and then I got studying more than ever, why did the birds recognize us as their enemies. Why was it? Why! I could not exactly understand it.

As time rolled on a dear little boy whom God had lent me for a certain length of time threw those delicate, weak, powerful arms around my neck, "Papa come on and go to Sunday school with me, won't you? It looks so lonesome for you here all alone." I might say, little boys and girls, you do not know how powerful those arms are when the children get them around papa's neck. The next Sunday, here was Carl and papa hand in hand on their way to the little red schoolhouse, on their way to Sunday school. The superintendent saw me and welcomed me and a great miracle happened,—in less than three months I was teaching Sunday school. But what would jar the cherries off Aunt Sarah's Sunday bonnet was the fact that I could not read. Teaching Sunday school and not able to read! My, that was a proposition. What could I do? What could I do. My experience is that in order to have a man you have got to have a live boy. I do not think it is worth while putting in time with a dead boy. You have to have a live boy if you are going to have a real man. I got these live boys. There they were! Of course, I was to furnish the brute force, if any was required you understand. They were going to keep quiet now. We got in a little room by ourselves, curtained off in the corner and got talking about one thing and another, talking about the Sunday school lesson when little George started, and he met somebody that was standing up, right up there, "And, George, now look, I want to tell you this; you are not in Mrs. Jackson's class now." "Oh, George, you are a good reader, and we want you to read the lesson." "All right, Uncle Jack." And George started reading. George was real, was one of the most loved boys we had in the school. George started reading. Now, I could not teach Sunday school; I could not teach the lesson at all but I could explain things on some points if George would read them, and George read. We started at the beginning of the book. To my delight when we got to Genesis 1, 21, we found that God created the fowl of the air and blessed them before he did us. Well, we had something interesting, very interesting. Those boys all got studying and as I would try to explain to them what I had seen in different places and how true I believed that was, and we boys all got interested. Then George read a little further and he came to the 26th verse, and he found these words: "God said let us make man," after he had created the

fowls of the air, etc. "God said, let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth."

"Well, say Uncle Jack, does that mean that we can have dominion over that flock of wild geese we see flying over here," and you can just hear them. (Imitating the wild goose cry.) "Well, read it again, George; read it again." George read it again and we talked—why, we talked for three or four Sundays about such things, and at times if we had had a hat big enough it would have covered all of our heads, the whole bunch of us, of eight or ten boys. The class grew. They were no trouble at all. You could hear a pin drop. We just had the best time and, of course, I was the biggest boy in the bunch. You notice, I never was a girl. I had five sisters and they were all girls, and that was enough, you understand in one family. And we boys got along, and as we got along further and further we were anxious for Sunday to come. And then we kept reading further and we came to the first game law that I can find any trace of in Deuteronomy xxii, verses 6 and 7. "If a bird's nest chance to be—" 'chance'—that is an opportunity—"If a bird's nest chance to be before thee in the way in any tree, or on the ground, whether they be young ones or eggs, and the dam sitting upon the young or upon the eggs, thou shalt not take the dam with the young; but thou shalt in any wise let the dam go, and take the young to thee; that it may be well with thee, and that thou mayest prolong thy days." "That thou mayest prolong thy days!" Let the mother go, not go out as some of us sportsmen do and shoot everything in existence and then sigh and wonder why game is not more plentiful next fall. However, as time rolled on, my boys outgrew the red school-house. George was president of the Epworth League. "Say, Uncle Jack, we want you to come out; come and give us a talk out at the Epworth League some night." "But George, I could not do that. I thank you so much. I could not do that. Why, you would be ashamed of me! How could I word my meaning? You know, George, that I could not. It was you boys taught me to read. I thank you." "Well, say Uncle Jack, look, look, if

you will come we will guarantee we shall fill that school-room.” That made bad matters worse. Now, what kind of language would that be in an Epworth League. “Thank you, George.” Just about that time in my life I was reading the Life of Job and I got interested, and in the 12th chapter I found these words: “No doubt but ye are the people, and wisdom shall die with you. But I have understanding as well as you; I am not inferior to you; yea, who knoweth not such things as these? But ask now the beasts, and they shall teach thee; and the fowls of the air, and they shall tell thee.” The beasts shall teach thee, the fowls of the air shall tell thee. Well then, if I knew as much as a bird or a beast, of whom need I be afraid? I never stole a diamond bigger than a water-melon in my life. So, taking all into consideration I went, and I have been growing in that respect, growing in confidence until to-night, I am standing here, growing.

About that time in my life one pair of old forked-tail barn-swallows came to our tile shed—a swallow that the English sparrow has so nearly exterminated came there. This tile shed has two stories, and it is three hundred feet long, and one pair came inside as far away as they could possibly get. The English sparrows destroyed the first brood, which was five, and I took the swallows’ part and those English sparrows have not destroyed a swallow since. The swallows successfully raised their second brood, which was four. Next spring two pairs came back. I must be brief; I cannot give you the details of this. But in the fifth year there were twenty-five nests in the shed and fifteen of the nests were within twenty feet of the busiest spot in the shed. They had moved from the south end or, from as far away from us as they could get they came as close to us as they could get. All I know is personal experience. That is all I know about it. I do know that those swallows came to us for protection. What did they live on? They lived on winged insects, entirely on winged insects, chiefly house flies. We know that the ladies never tell what is not true. Our ladies say that there is not one fly around the home with a flock of those swallows catching every fly that approaches and carrying them and feeding them to their young. Is it worth while to have that kind of swallows around. That is true. Is it worth

while! We have put a paper under the nest time and again when the fledglings were developing and found that those papers contained half a cupful of droppings every twenty-four hours. All flies! That is what they do with the flies. We know that that is true. Scientists tell us that a fly will carry typhoid from home to home. If that swallow caught that fly on his way to your home with that disease, the bird prolonged your days. "But thou shalt in any wise let the dam go, and take the young to thee; that it may be well with thee, and that thou mayest prolong thy days." I have positive proof by protecting the one nest we had twenty-five the fifth year. I know that and I honestly and conscientiously believe the other. It makes those things plain. I can go on and tell you how we raised the purple martin, which is the biggest swallow we have. We put a house up. I wanted to get the martin coming to my home. How should I do it? I saw an advertisement in a little journal known as "*Dumb Animals*" published in Massachusetts which spoke of shipping three carloads of martin houses last week. That caught me. The thought came if he is shipping carloads of martin houses all over America, and they saw one of his houses, they will come to it. I will try it! I will not tell you what I gave for the house. I sent a cheque for it. In a short time the house arrived. On the third of May, 1913, all of us boys around the neighborhood got together and raised the house. The next morning I got up early and before I had got my trousers really safely buckled on, I creeped out and looked to see how the martin house looked. To my surprise and delight there was a pair of purple martins there hovering around the house, and I had never seen one there before. They were in Kingsville two miles and a half away. In a few hours along came the boys. "Hee, Hee," smiled Jack, "there are some blackbirds around your martin house." The little fellows did not know then. In less than a month thirteen out of the twenty rooms were filled; I counted sixty-five purple martins around the house on this 5th of August. Is it worth while? I know that it is.

Now, the robin, I won't tell you how valuable the robin is or how valuable I believe he is to you to get him coming. If you want an interesting experience get a little nest of robins about the time they are going to fly out of the nest. Put them into a little soap-box. Take the nest and all, or in case you don't want to

break the mother's heart take two out of four, but do not take them from anywhere near your house or that old bird will come and steal them. Take two out of four, leave her two. Just before they are ready to fly put them in a little soap-box so that they can get out, and make a little custard. One egg to half a cup of milk, no sugar. Then your robin, after staying in the box three or four hours, will be a little shy, but just pry his little mouth open and drop a little custard in, and in a little time his head will almost seem to split in two because his mouth will be just like that. He will just squeal for that custard, and as quick as they can fly you can let them out of the box and they will be all around. Our little fellow has them every year. We cannot live without them. One time, oh, I heard the door slamming, and I heard scolding at the house. I did not know what happened and "shoo," "shoo." Because Jasper had left the screen door open and one of his robins had gone into the house and roosted in that room, the boys call it cold storage, but it's the parlor, he had got on mamma's best picture and had roosted there; he had followed Jasper into the house; that is how it happened and mamma was "shooing" to get it out of there and had all the doors open and the robin flew against the window. Jasper said, "My robin," and he tapped a tin and the robin flew on to the tin. That is how tame they will get. You can do anything. It is only a matter of education. We have dominion over them; we are supreme. Do not let us forget that. My experience with what we call the wild birds is they will become tamer by far than our domesticated, our tame ones, as we call them. Our wild birds around our homes get tamer than the little chickens do. These things are all plain to us. You have read. I never did, but I have heard well-educated men say that there never was a tribe of heathen discovered but worshipped some kind of idol. I cannot say if it is true, but what I know is true, that no intelligent man can live out of doors and study nature without being compelled to believe there is an over-ruling Power. He has to believe it. Taking His promise into consideration that man has to believe.

Now, about birds; do birds return to their homes? Well, that is a question that, oh, so many people used to ask me. "Jack, do they come back?" "Yes." "Well, how do you know?" That always makes me think of one of father's pointers. He did

not give us so many pointers but those he did give were to the point. One was, "Whenever you grab hold of anything and find it red-hot, drop it as soon as you possibly can." Do birds return to their homes, that is the question. I did not know and what I had been trying to know is to know something about them. That spring—that was in the spring of 1912—I hatched four little wild ducks. Pardon me, I am getting in wrong, I didn't hatch them; I am a little excited. I did not hatch them at all. My eldest brother told me to be always careful over that "I." He said, "If you look it up, Jack, you will find I is the first letter in ignorance." Possibly it is. You know how it gets in our way, people. I stole the eggs and an old Wyandot hen volunteered to act as step-mother. Now, we are getting straight. In a few weeks she hatched them, she hatched four little ducks, little wild ones. Now, if they were not the interesting little creatures and, do you know, they liked custard too. I would drop a little bit of custard down in front of their coop. They were penned in. By the way, don't forget if you are raising birds of any kind, quail, partridges or ducks of any kind, don't give them their liberty. If you are raising them with a step-mother, put the step-mother in a permanent coop. Then make a little playground about two feet square in front of the coop so that they can get a little way from her, but not far until they accept her as their mother. So many people state: "We have had some experience, she hatched them out and they ran away." They ran away because they were not acquainted with their mother. In two or three days they will stay there. Then quietly draw the two nails on the side and pull the front frame away. If one of them runs away, don't run after it, but just tap the tin. Never try to chase birds. They have proven to my satisfaction that they can fly faster than I can run. I have tried all this. But drop a little custard in front and the old hen will call them, and pretty soon you will see that little fellow that ran away coming out of the grass and pretty soon he will come up to her and look all around and start feeding, and then you tap your tin and in a few days you will be surprised to know how soon they will come to meet you. I have proven that it is not the birds that are wild. It is the human race that is wild. We are wild because we desire to be so and they are wild because they have to be. That is the only reason. They will come tip-toe up there, and there

you have got them. Those little ducks, it is surprising how fast they grow! I wanted to learn something about them. I used to go to Detroit and come to Toronto to buy guns, but now I have gone clear up to Detroit twenty-six miles—what for? To buy some aluminium and a set of stencils, and we came home and got mamma's flat irons, and how she scolded. We have got a piece of railroad iron now. The duck's legs and feet grow first. their wings grow last. Their legs are fully developed at about six weeks of age. I never saw one that flew younger than eight weeks. On each one of those ducks we put one of those cuffs and then we named them. We named them Belle, Delila, Susan, Helen. Each one has got an aluminium cuff on its leg. When fall came they got up and went away. By the way, they had no leader there. What told those ducks there was a warmer place south? They had a lovely home there. They would come and eat out of your hand. They would follow you into the house if you left the door open. They would go everywhere, but now they got dissatisfied and then it got cold. Why did they want to go away? I once heard a man ask the question: "When was the right time to start educating a boy?" And the reply was, "A hundred years before his mother is born." I believe that. Why did those ducks want to go? You call it instinct; you call it nature. You call it a great variety of names. But I have just boiled it down to three letters, *G-o-d*. He provides. They went away. The following day one of them was shot—Helen was shot at Mitchell's Bay, Lake St. Clair. How they got fifty-two miles east I don't know. They started straight south. Dr. Rutherford, of Chatham shot Helen. Then I almost beat a track to the Post Office going to hear from the others in a day or so. "Why sure, I shall hear from them right away. Why they are tame ducks. Somebody will get them right away." Time rolled on and we did not hear from them. Why is it we did not hear from them? Why didn't we? When the 14th of March, 1913, came, Belle came home. Do birds return to their home? We caught it and examined the tag. On the 20th of March Delilah came home and on the 30th of March Susan came home. I wish you might see me buttoning up my coat. I wanted some of those fellows to ask me, do birds return to their homes. I know they do. Susan was wounded in the wing. But Belle and Delila both raised families. That fall the

three of them migrated again. Noah Smith, of Paris, Kentucky, shot Susan on February 17th, 1914. On March 10th, Belle came home. On March 18th, Delilah came home for the second time. Do birds return to their home? Yes, of course, they do! Are they the same ducks? Why, they have the tags on. Two of them raised families that year, migrating again in the fall of 1914. In the spring of 1915, Delilah got home. That was on the 13th of March. Belle got home on the 16th of March. You will notice Delilah got ahead. That was the third time. Belle had got her beak too far ahead, and a shot had cut the side of her beak off and it was hanging there. She could not eat corn. I mixed up porridge—I do not know whether ducks are Scotch, but I know they like porridge. I mixed up porridge and Belle came and tried to eat. I got a long handled spoon I have there and pushed it out and got Belle eating out of the spoon, but she was unconscious of the fact that the spoon was coming my way and she was following it, and about the third time she ate out of that I had her in my hand, and I fixed up her beak, but she could not close it for a long while. Then I caught two of them. I put them in a twine sack, took them to town, and stood them on the table in a photographer's office and talked quietly to them and he stepped back and he got a picture of the two. I want you to take into consideration that those are the exact same ducks, and they are tame ducks when they are home. We say, "The silly old duck." Sometimes I wonder what the duck says. In the Southern States the duck hunter has live decoys with a call for every duck. Now, if they venture within 200 feet of those live decoys, it is almost sure death to them. But they are intelligent enough to go into those states for three years in succession, go around all those guns that are hid in ambush for them and then come back home and eat out of your hand. Is it worth while thinking of it? I tell you, it will get close to you every time. Belle after she got part of her beak all shot, decided that Jack Miner's home was good enough for her. She stayed with me. She was shot by some wild goose hunter in the spring of 1916. But Delilah continued to migrate and return and got back for the sixth time on the 18th of March, 1918. When she came back the fifth time we caught her and took that tag off her leg because it was nearly worn out, and put another tag on with our post office address. Delilah came back for the sixth time

and we had positive proof of it. During those six summers she raised five families. She hatched them out. We have known them to hatch five miles from our home, but she would be home with the young ones in five days. Here is something worth while? Somebody said, "Oh, no use Jack, we can't have birds any more, we might as well throw up the sponge, there are so many hunters. We can't have them." We can have what we will have. I want you to take and figure out the total increase from one duck in six summers. Figure it for yourself, Delilah's first family was eight, the second family was eight, the third family was nine and the fourth family was nine, and then she missed and in 1917, she came home without any and in 1918, she came home with twelve. Figure out the total increase with one duck in six years. You will be surprised how many pairs. You have got to figure them as pairs. You will be surprised when you hear there are over 3,200 ducks. Is it worth while? What did He say? At least let the mother go that it may be well with thee and that thou mayest prolong thy days. Good sensible game protection allows 100 per cent. dividends every year. Do we want anything better? Is it worth while? Oh, I could go on and talk about ducks; it is hard for me to break away. I could tell you more about the interesting things that happened about those ducks and how they will get next to your heart, but you want to hear something about wild geese.

How did you get on the right side of the wild geese? I did not get on the right side. The wild geese got on the right side of me. It was they that beat me. I would be out hunting them long before daylight. I have left home as early as half-past one in the morning with a few decoys. Wild geese were very scarce in our part of the country, and with the few decoys I got out in some field possibly where there was a corn field. The geese would alight on the wheat and walk into the corn, among the corn stubble and pick up the loose ears. There I am out before daylight with a blanket the color of the ground. I never hid where the wild geese were looking for an enemy. I always tried to hide in about the last place they would look. I had a blanket the color of the ground. If there was a little bit of snow on the ground I got a sheet. Mother would not know it until I came back. Three corners are staked down, one is left free, and when I put these decoys out, and

when the wild geese come, I am right down on the broad of my back, zig-zagging in. I am going to shoot sitting down. I have learned that they rise and lower against the wind and I have taken all that into consideration. One morning I hitched up and drove all alone. And while you are alone, you have felt the best company all around about you. The best thought you ever had come to you. Some of the best thoughts you ever had come to you when you are all alone. You cannot give any account of how that good thought drifted in. I am all alone and out before daylight with the decoys out and everything staked down ready. I had a lantern with me and I hunted the field and I found the tracks where wild geese had been. I had been watching them for two or three days and saw them fly past my house and knew where they went. Now I am right at their feeding ground. But just as it is getting nicely daylight there appear two men coming out into the field, the next field from where I am. There is only a wire fence there. Here I have been out an hour and a half and got everything ready and now it is all off. Oh, do you know how we cross a lot of bridges before we get to them! There, I am worried, because the wild geese won't come. I look and in the distance I see a thin line, a bunch of geese coming and just as quietly as possible just like a turtle going into a hole and bringing the hole with him I go underneath that blanket and lie down and lie there with one eye out and see them coming. Eventually I can see the ends of their wings. Finally I can hear them. They are getting closer. (Imitates the wild goose cry.) "Come on, all is well."

But they are coming right straight for these two men that are starting ditching. And my heart just thumps, almost beats that ground into bumps when I see that they do not shy out from those men. But the leader says (Imitates cry).

And from under that blanket comes the call (Imitates cry). And he circles around and rises up in the air and surveys the scene.

And they turn against the wind and they drop as though to come down. Just before he gets within range of that deadly shotgun, what happens? He changes his note altogether. I don't know what it was, but possibly he saw one red hair projecting from under that blanket. It may have been. But he changes his

note and the instant he utters it they fly in as many different directions as there are wild geese. They just shoot through the air—as if Satan himself were after them. They do not get together, do not fly in line until half a mile away. Everybody looks after himself. You talk about a man feeling like a cent. He passed over the two men in the field, and he said, “You are all right; they won’t harm you. All is well.” But when they come to that fellow, that is the fellow that knocked two out of our family last year and that is the same position—we were not here, we were half a mile from here, but that is the fellow. Well, there is no hope, I gathered up the decoys and got into the buggy and started home, with the old self-starter I tell you you are thinking, you are out with it, you are beat to a standstill by the wild geese. That fellow knows that that is his enemy under the blanket. He passed over these other fellows and did not shy for them. He knows that is their enemy. I did not think I was so brutishly homely as compared with those other fellows, but he knows it. What shall I do about it? If he knows me as an enemy, would he know a friend if he had one? I wonder! I wonder! A little dog that is not six months old, does not he know the last fellow that kicked him? Leave it to the dog! Then this old gander that has possibly crossed over this continent fifty times, would not he know as much as a dog! It is because we have not stopped to think, that is all. Of course he does. I am going to change my plans. I will get acquainted with that fellow; I will learn something. I thought I knew something about wild geese. I should like to get acquainted with them. I went home. I was almost ashamed to tell what happened. I made arrangements with the boys—of course I am the biggest boy in the neighborhood—if you fellows want to shoot any of the wild geese that come round here, I shall bring them right here on to these ten acres. “Uncle Jack, it doesn’t require any skill to shoot wild geese. It requires skill to get the chance. Any person can shoot wild geese but how are you going to get the chance?” “Leave it with me.” I bought seven wild geese with their wings clipped. I was such a hunter that I could not buy them. I got the other fellow to buy them. There is a lot of deception—so much bad about the best of us—I shall keep still. I got the geese and I put them into the north pond. I only owned ten acres. When I came

into that place it was all one dense forest, and now it is all taken out to manufacture drain tiles. They are mud holes. I put them there in 1904. In 1905, no geese came. In 1906, no geese came. In 1907, no geese. "Say, Uncle Jack, when are those geese coming that you said were coming?" "It is all right boys." In 1908, April 1908, eleven wild geese came and it jarred the whole neighborhood. "Oh, the wild geese have come. Jack said they would come," and every boy was there with his gun, and men too, to shoot them. I only owned ten acres. How could I protect the geese or birds on ten acres? Only by working with my neighbors. That was the only way, by allowing them to shoot a few, whenever the time was ripe; we did not shoot them that morning. We went up in the tile shed and looked at them feeding for fully fifteen minutes, and we just saw how they were and then we came down and lined up, eight of us, behind the bank and I said, "All right, boys, cock your guns," and some of their guns were just like a boy playing with fire on a stick. But when I said "All right." I raised up and gave the alarm, honk, honk, and the wild geese were up in an instant, and when the smoke cleared away there were five wild geese there, but six got away and flew to the lakes, screaming as loud as they could. The hand of Providence has been right behind Jack Miner all his life. These eight men represent five homes. Supposing there had only been four, what would Jack have done for five homes, but there were five geese for five homes. How nice for me. In a couple of hours the geese came back but they did not alight. Next morning they came back and lit and in two weeks they became quite contented again. They disappeared on the 2nd of May. Next spring—"Will the geese come back?" I was never called such a great variety of names in all my life. For saying, "Those geese will come back," and they kept joking me about it until the 18th of March came and I was outside and I heard a strange honk and our geese were there, and when I looked here was a string of thirty-two wild geese coming. I wished I were a mouse so that I could get in. I wished I could get in somewhere but I could not and so I stood there beside the horse and the wild geese lit within a hundred feet of me, thirty-two altogether. And then I thought as quick as they saw me they would fly. Did they? No, I had the opportunity of seeing them introduce their families to these others. Why? They were ac-

quainted. Of course they were. They introduced themselves. "This is Uncle George and Hannah," and they flouted their wings. And when I came out from behind the horse the leader, he said, "That is all right." Now, I do not know the exact interpretation of that, but I think he said, "That fellow is strong in the back but weak in the mind; he won't hurt." However, they did not fly. We boys, lined up after a while and shot ten of them and let twenty-two go. The next spring, "About what time will the geese come back, Jack?" Oh, it was not, "Will they come back?" No, no, it changed, "How many will come back?" "Oh, there may be sixty come or possibly a hundred." "Do you think they will?" I said, "I am just guessing; I have come to the conclusion I don't know anything about them." I used to think I knew a lot about wild geese. On the 4th of March they started coming and in less than two weeks 350 or 400 wild ones were there. The boys lined up and shot twenty-six and left about 350 to go north. Next spring, 1911, they started coming after the 20th of February and about the 20th of March, when I stood at my home—three miles from Lake Erie—you could not see one end of the stream that would be coming down—just like a whirlpool into the ponds, could not see the south end of the string coming. I did not know there were as many wild geese in the world. Where did they come from? Where did they come from? Now, I am here to say this that it is a nice thing to have company, it is nice to have guests, but to have more guests than you can feed is awfully embarrassing. Some have told what is not true because I could not feed them all. The boys shot eight, and one morning they shot into a bunch of five. Two fell dead. One fellow with a broken pinion could not get away, and two flew away to the lake. They gave me the broken pinioned one and I performed a surgical operation; I took the end of the wing right off, tied the arteries and put the goose right by the pond near my house. In less than two hours the other two came back and they scoured the heavens. By that time there were fully five hundred or a thousand wild geese in the north pond or in the field and they all honked to them, but they would not come down. Just as they had apparently given up trying to find any of their family, this fellow in the pond gave a honk and the two of them turned and came down. They came right down into the water by the

house. To be brief,—the geese migrated—but the big gander—voluntarily gave up all his liberties of this North American continent and lived the rest of his life with his broken pinioned brother, who never could fly. When you think that you and I say, “The silly old goose.” I want to say instead of saying, the silly old goose, “The Canada goose is the cleanest and most self-sacrificing creature that I know of on the face of the earth, not excepting saint or sinner. Our Canada goose! I was born under the protection of the eagle’s wings and I respect him in every way. But if five per cent. of the Canadians really knew the Canada goose you could not keep him off the Union Jack. I am writing a book on it. That seems funny—a man like Jack Miner writing a book. I am writing a book on the birds and I am going to show you that every word I say is true about them.

We named these two David and Jonathan, and that took the shot out of the whole neighborhood. See how things are working for Jack Miner! You know, I have all to be thankful for and nothing to boast of.

In January, 1918, a great horned owl from the north was starved out, the rabbits being killed off with disease which they are as a rule every eight years. They were starved out and migrated south. One stormy night—one of these owls attacked our geese, and then Jonathan, with both wings, had the privilege of flying away, the only geese that ever stayed there that could fly. The other geese ran underneath the shrubbery. Jonathan went at the owl; there were tracks all round where the owl had him by the head, and they must have fought for an hour. My heart ached in the morning when I got up and found out all that had been going on unknown to me, because there was Jonathan lying dead. He sacrificed himself in the end for his broken winged brother. That owl never killed another goose. He came back the next night. You have heard, the cat came back. I have this to be thankful for, never did an owl take a bird from me but he paid the penalty. I had a tooth for a tooth. Never did one get away.

On October 10th, 1917, six wild geese lit in the pond as I was eating dinner. The boys said, “Father, look out there, look out there,” and I looked out and here were six wild geese in the pond. I got right up, and went out. I called, “chuk, chuk.” Does not that sound strange? Here is the same variety of bird

that I have crawled on the ground trying to get a shot at and now when I call on the doorstep, he answers. "What is it?" "All right, I will come down." I went in to the barn and I got twelve ears of corn, and I threw them at him and he didn't touch it. The four youngsters would fly up every time I threw. What did he say? (Imitates birds.)

And the instant he said that they would drop down, and then I would throw another ear and they would start to fly, and he would say. (Imitates birds.)

By the time I threw seven or eight ears they took his word for it and did not rise up and then he started teaching them how to get the corn off, and picked ear after ear of corn. What did that tell me? They came all the way from Hudson's Bay without stepping and that is the first corn they had ever seen. They got quite tame. We permitted our own six or eight to go into the pond and then our own would go under the net. That is done so that when the wild ones know, they will follow our own under, but we must have people that are acquainted. So one day everything was quiet and no person around and I said to my mother-in-law's daughter, "I want you to help me just a minute." I went and got a piece of binder twine and strung it across. She got hold of one end and I the other, and the first thing they knew they were under the net and the bar was down. The six wild ones, I got them with my five or six tame ones. I knew I was going to get them, so I took tags with me. "No good thing will He withhold from them that walk uprightly." I knew we should get the geese. I went in to get them. The gander showed fight, but we took him and clamped a tag on his leg and brought him to the door and threw him out. Did that father of the family fly to the lake? He had his liberty. No, he just flew off about two rods and turned around and looked back, and yelled to his family. But they could not go. I went up into the corner, we will say number two, and while I was there I heard a commotion at the bar and I looked round, and the lady was on the inside looking out. Why? Because the gander had come. Is it possible that gander came to the bar, that faithful old gander came to the bar and he never left until every one of his family was liberated. Then they did not fly away. They

all went up to the pond and he said, "How are you?" And they all got into that pond and just had the greatest talk. "Everybody here?" "Everybody is all right." In a few days, owing to his faithfulness, I wanted to catch him again, which I did. I got around him and we put the cuff on his leg. Seven tags on the six geese. A Month or so later they migrated. In February, I got a letter from Maryland: "I killed a wild goose with a tag on its leg with address on one side, Box 468, Kingsville, Ontario, and on the opposite side, "No good thing will He withhold from them that walk uprightly." A few days after the tag got home we looked out of the window and here is this old gander whom we named "Sir John Moore." I had heard father tell what a faithful general Sir John Moore was. Here is the old gander with four of his family with him. There he was standing just like a statue. You have heard tell, especially you Methodists—I happen to be a Methodist—I heard a fellow say once, "It is best to watch them." Sir John Moore happened to be the same with me. No matter where I would go he thought it was best to watch me. You understand, it was one eye. They stayed there and migrated and went north with the big flock and my heart sank—not that I am opposed to the Indians getting the birds. Who has more right to our wild geese, than the poor Indians up around the North Pole, sitting around Icele Junction waiting for spring to come? Who has more right to them? When summer came I got a letter containing four tags. I opened the letter and found four tags. "No good thing will He withhold from them that walk uprightly." The letter from Hudson's Bay said, "The Indians shot one goose that had two tags on its legs." I knew it was Sir John Moore and his family. This last fall we tagged five out of a family of eight, and another family of seven. Both families came back unbroken. Eight and seven came back and this year they have come back in the greatest numbers ever. I believe that is due to better education, the bird treaty between Great Britain and the United States. Two families have come back unbroken and now they will be able to go back to their nest again.

People of Toronto, in less than ten years I believe we are going to prove that our wild geese can be fed and taken care of and stay in Canada all the year round in Essex County. I believe you are going to hear that Jack Miner has got wild geese around his place

all winter that do not migrate. I would not say such a winter as this. By the way, I heard a farmer say one time: I will tell you, Jack, there is a whole lot about growing corn we have not come to yet." I believe every word of that. There is a whole lot about wild geese we have to come to yet. I honestly believe that wireless telegraphy is as old as the wild geese. I believe that. What caused me to believe that? Here is just an illustration. On March 3rd this year, our geese were as quiet as could be. It was a far warmer day than March 7th. It was the first day it really thawed from the 2nd of December up in Essex County, March 3rd. It was good and warm. The wild geese were quiet. On March 4th, at 3 o'clock in the morning that old gander started; you could hear him (imitates bird) and he never let up. The telephone rang, "What is making the geese 'holler'?" "Other geese are coming; the wild geese are coming." Noon came, no geese got there. But they were all looking for them. Time rolled on; the day got older and five o'clock came and no geese, but when six o'clock came seven wild geese arrived. Why did not that gander start 'hollering' after the 3rd? They were just as quiet as they could be then for a week. No more geese arrived. On the 13th they started at about three o'clock. Why did he start at three o'clock? I have known it to happen similar to that dozens of times.

I must not talk any longer. There is more programme here. I should like to go on and tell about Jack Johnson and his family.

The President: Go ahead.

Jack Miner: Oh, the girls will sing again! Jack Johnson and his family—he and his sweetheart started keeping house over on the bank of the pond where I could see them, about 200 feet north of the north door of the tile shed. She is on the nest and he is standing. By the way, I never knew him to be two rods away during the time of incubation—always on hand; eye bright as a diamond, and there is no living thing can approach. Their eyes are evidently fitted up with the very latest of electrical equipment. He can see everything. If a dog goes running across that field he is lying there for it and the dog will never see him unless the dog gets too close to the nest and the dog will know he is near there. One day I noticed Charlie, the cart-horse—he weighs 1,660 pounds—and that horse is going to step in that nest. Old Jack Johnson,

I can see her; she is lying down, her neck straight out. By the way, I do not think there is anything can put on a worse look than a wild goose that is angry. Oh, those eyes! She is lying there with her head quietly curved and Charlie is crossing a little closer, crossing a little closer and closer and then he is within four or five feet of her. I see Jack Johnson pushing himself along; he is within three feet of Charlie's heels, but Charlie, of course, is unconscious of it. He is pushing himself along with his hind feet. You can hardly see him move but he is coming. Finally the horse is within two feet of the goose and the goose rises up, puts her wings up, and the moment the horse's attention is rivetted on the goose, that old Jack Johnson grabbed him on the fetlock and you never heard a horse give such a snort in your life. Did he jump on the nest? No, he did not know which end he was bit on? He jumped sideways. The question is why did not the gander bite the horse before he saw the goose. Because the horse might have jumped on the nest if he had done so. Just look at the judgment that was used! Look how it worked! The horse did not know whether he was bit or stung. He did not know which. When he got about a hundred feet away he stopped and looked back. He would have sold for \$100 more, he was a foot higher. He gave a few snorts and went towards the barn. He ran because he could not fly, that is the only reason. It looks unreasonable, but the horse squealed when he drove him near the nest a year after. That is true. However, time rolled on. The goose was sitting in the sun. She took sick, evidently sun stroke, and she left the nest. Jack Johnson scoured around. I have never known a gander to go on the nest. A couple of us men went over and fought him away and took the eggs and an old Plymouth Rock volunteered to act as stepmother. Previous to putting them under we put the eggs in warm water. We covered the hen up—don't forget this—so that she cannot see what she is hatching until they are perfectly dry. Then she is not apt to pick them. Young wild geese are the biggest babies I ever knew in my life and they grow the fastest of any creatures. In four weeks they were near two feet high, and a laughable thing we saw. If there came up a little rain, you would see them gather round that old hen to get under her wings. The old hen would try to do her best and I have seen them get up and heave her right off the ground. We have

never had a black eye at our home since I can remember, but you now and then hear the door slammed a little extra, and I was led to understand right from headquarters that our back door-step was not the place that wild geese were going to roost. Yes! Well, all right. So one morning I got up early and coaxed them through the gate. Now, old Jack Johnson knew there were six eggs in the nest. He has secured the whole field for them. One bright morning in July, the dew is on the grass, the sun is just coming up. The old goose has never been out of the pond since she went in there. I coaxed them through and as they go through and the old hen follows them, I start away from them and Jack Johnson sees them and he starts and comes along as hard as he can come and I ran back for fear he would kill them, and I was glad I got there a second late, because when he got up within about ten feet of them each gosling lay down and that faithful father put his wings over them and he caressed them. I looked round to the old goose. Do they have a language? She cannot see; she is behind the bank. I know she cannot see. It is the same place where we have walked up behind right upon a flock of wild geese. She comes over the bank and comes on her way, and they all meet together and the sweetest re-union I ever witnessed in my life is the re-union of Jack Johnson and his family. They knew their young. I don't say he caressed everyone of them. He did caress some of them, and then they got up and shook their baby wings and they knew their parents. The old hen started to go with them and he hit her with a swipe of his wing, and after he struck her she went away. Then the goslings came back and got her and she went to the pond and that gander never touched her afterwards. Do they have a language? I know they do! You can blindfold me, and put me in the cellar and if I can hear the wild geese talking I can tell you some of their actions. Due to my ignorance, I have heard two or three different sermons preached in Latin and I could not tell you a word said, but I will tell you some of the wild geese actions if I hear their language. There is the re-union of Jack Johnson and his family.

I have got to tell you this. I have fed the wild geese away beyond my means. Away beyond my means! But, thank God, I had the ambition to do it because they have brought me what money could not bring. What is it? I have had a lot of sadness

in my life—a lot of it. As we advance in years, life loses its charms, a certain amount of it. My dear father said to me when he was eighty-eight years old, “Jack, it will be all for the best when that day comes; I am so lonesome here.” I could see that his thoughts were over there. Then comes another thought: What will it be like when we get there? Shall we know mother? Shall we know father? Will my little curly haired girl be grown to womanhood? Will my promising boy be there? Will he be a man? If they are changed, I shall not know them. My dear sister, when her last boy fell she was near my home, and she came to me, I being the oldest boy living, and she put her dear arms around my neck and she just hung on to me and she said, “Jack, it is all right, it is all right, some day I shall meet my boys. My boys were not cowards; some day I shall meet my boys.” She hung on to me and she said, “I shall know my boys; I shall know Merrill and I shall know Gordon and I shall know them all.” The question comes. Will she know? Will my dear mother’s hands be cramped with rheumatics and her shoulders bent when I meet her again or will she be in the radiant tint of girlhood when she became father’s sweetheart? The wild geese have settled that all for me. That meeting that morning when I stood there barefooted and bare-headed and tears running down my face as I saw them loving each other, whom they had never seen. Here is the thought: If God in heaven can give the wild geese intelligence enough to know their loved ones that they have never seen, why should I hesitate as to whether I shall know mine when I meet them again. Why should I! In addition to that, what does He say? He says, “The beasts of the field shall show them and the fowls of the air shall tell them.” They settled that for me.

Ladies and Gentlemen:—I thank you, and pardon me for taking up so much of your time. Now, if you will put the lights out I will have the pictures put on.—The pictures are then shown.

I want to close with these two or three words. Do not forget this, my friends, that those birds were created and placed here before we were and then the great Provider gave us dominion over them. Are we going to exterminate them as our forefathers did the pigeon or are we going to say: We will do our bit so that the rising and unborn generations to come will be able to see the birds. I am sure you will join with me in saying: We are going to have the birds.

EDUCATION THROUGH PLAY.

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Organic Social Psychology is making clear to us the fact that education of the children is the most important function of each generation. The fact of birth and death, a new generation arising and the present helmsmen of human affairs passing beyond, makes education the first essential to be cared for. If the arts and crafts, the discoveries and developments, the hard won advances in ways of living are to be kept for human life the children now coming to maturity must be let into the secrets, discoveries, achievements, inventions of human well-being and enlisted in the development and furtherance of human values. The welfare, not only of the next, but of all succeeding generations depends upon the present generation performing its educational task well. All honor, therefore, is due those who have evidenced such far-seeing vision in choosing the teaching profession as their life task. Even though society as yet fails to give adequate material recognition the teacher has the spiritual joy of being engaged in society's most essential function.

Organic Social Psychology is also making more clear the meaning of education. For the individual education consists in complete living at each stage of growth; and the development of such a disposition as guarantees whole-hearted living in each successive circumstance or situation to arise throughout the span of life. Through his responses (self-activity) to life's situations in which he is allowed to share, and welcomed as a contributing agent, the child not only develops his own powers (physical, mental, social) but discovers the meaning of society's achievements (inventions, standards, techniques, ambitions) and identifies himself with their preservation and further development. His body, his mind, his spirit, grow through self-activity. His body grows in response to exercise and harks forward to more and greater doing; his mind grows through re-adaptations, re-adjustments of ways of control and through organization of experience harks forward to more

definite, and therefore, more dependable adaptations. His spirit or social mind grows through his sharing in the promoting and developing the relationships of human well-being and harks forward to more definite, and therefore, more socializing adaptations.

For the teacher (in home, school, church) education consists in supplying, according to the laws of human development, the conditions which elicit, or stimulate complete living on the part of those being educated. The complete living of the child is the educator's goal, complete living at each stage of growth. A child of five is to be given the conditions, the responses to which, equals full living for a child at five; the child of ten is to be given the conditions which elicit his responses in full measure for the child of ten; the seventeen-year-old, the twenty-year-old, is to be confronted with conditions, situations, which call out his full response, his full sharing in human well-being.

The educator, instead of being an instructor in the sense of imparting knowledge, is an engineer, supplying the conditions and situations, in re-action to which the pupil develops his own powers, his own ideas, his own privilege of sharing in life's achievements and responsibilities. The educator has the privilege of marshalling conditions and situations so that the learner in re-action thereto discovers the nature of life itself, and identifies himself, in some chosen division of labor with the preservation and enhancement of its values.

The whole of human activity—technical and social—is at the educator's disposal as material for enlisting youth as a participant in the process of conserving and developing human values. The home, for example, is a rich mine of contacts, relationships, problems, the living out of which prepares for living in almost all other relationships of life. The home has need of and reaches out into the practical arts, social understanding, governmental co-operation. Again, any of the divisions of labor—agriculture with its many specialized lines, the industries of all kinds, the many phases of commerce, in fact the thousands of general and specialized tasks essential to well-being, not forgetting the function of social engineering in teaching, the ministry, charity organizations, etc.—afford manifold stimuli for the educator to enlist youth in full response, full sharing of life's tasks and ambitions. In these responses, lan-

guage, mathematics, hygiene, writing, music, all the technical and mechanical arts, all the social and spiritual creations, which man has discovered to date, become curriculum—material, tools—which give appreciation, understanding, and impetus to the child in his voyage of full-living. The daily life process in process of discovering itself, of solving its crises, is the primary material of any real curriculum; the books and experiences wrought out by society are splendid for giving insight and meaning to this process of discovery.

The educator, in stimulating the child to live, does not seek to impose ready-made ideas or ways of doing on the child. The good agriculturalist knows he can not stick the ear of corn on to the stalk. He rather supplies the conditions of growth essential for the grain of corn to do its own growing, conditions which stimulate it to fill out its nature to the full at each stage of growth, and finally in virtue of full living at each stage of the long process issuing in a stalk of corn with two ears on it. So the educator has the sublime faith that the child has capacity for larger living; and by living out his full capacity at each stage to issue in full grown man, man who contributes to the human family in some profession or division of labor, man who lives for and in behalf of his fellows of whatever race or clime. In this faith three great convictions grip the soul of the educator. (1) Within the child is the dynamic organically inherited capacity for living; breaking at the rein to get into expression; (2) the teacher has the whole life of man—all the achievements of the past, the developments of the present, the hopes of future, as stimuli to enlist the child in life giving activity; (3) the child develops self-selection, choice, so that on his own account he selects his environment, selects from among his possible activities and becomes an initiating agent in human well-being.

This is the spirit of education as seen through the eyes of organic social psychology. What has this to do with "Education Through Play?"

When the educator discovers his task as that of enlisting full living on the part of each child at each stage of growth then play becomes a prime means of education. In fact, he finds play to be the scarlet thread of education, the thread around which the rope

of life is woven. All the foremost students of child growth tell us *the child's life is play*. All the child's growth, physically, mentally, socially, morally, is developed through play. Good education, therefore, not only provides for *directed* play at recess time, but for *directed* play in all the school sessions. The forms of play change from one period to another. Each period is a voyage of discovery, a period of hilarious joy of living. Each is a period of experiment, of further developing the capacity to share in some of life's glorious privileges.

All teachers should understand play. Play is an attitude, a spirit, which arises out of any action no matter what the division of labor involved. When the action is prized for its own sake, or is prized because of the part it is playing in the consummation of a future action—then that action is play.

Play is not a series of movements, of activities, in which one can be trained and the performance of which constitutes play. Whether activities with a baseball, croquet, dolls, etc., constitute play depends altogether upon the attitude of mind. These or any other activity may or may not be play. Play is present in any or all action which is wholly engrossed in its object. The banker who is engrossed in his task or in a larger activity of which the present activity is playing a part plays. So all the regions of human adjustment may be gripped by their worth for the present or future and become play. Moreover, action with the spirit or attitude which is play is always buoyant, hopeful, forward-looking. It is the oversoul of human life.

When folks play in rhythmic sound it becomes music; when they play with form it becomes sculpture; when they play with color it becomes art; play with ideas gives the setting for literature, philosophy, poetry. Play with discovery of nature's laws constitutes science, invention. All good students play at their work. All great engineers play at their tasks. All good workmen, no matter what their line, play in the process of work. It is the working for pay, for economic interest, from necessity or compulsion that blights life.

Play is so valuable in education because in play there is totality of response. The whole self is engaged in the act. No matter what the act, when there is complete engrossment there is play.

Prof. Zabitz (?) plays in developing the yield of oats for Ontario. The real home builder plays at her task. The real business man plays in his work; it engrosses him.

Moreover, play develops the sporting spirit so essential to life. It develops the spirit of fighting your opponent in good nature, hitting hard, but a man whether you win or lose. A good ball team is one that has the fair play spirit. The playing of directed games is the best means of contributing this quality of fair play to human life. The boy who cheats in three old cat, or in a game of baseball will cheat as a banker. The boy who never learns to co-operate and play each for all and all for each as a boy will not play each for all and all for each when a man grown even though he be a teacher or a minister. Play develops the co-operating spirit.

Again, play develops the team-play attitude, the attitude of the sacrifice hit. The real player forgets self for the good of the team. The ability and disposition to make the sacrifice hit is a great achievement.

Moreover, play levels race and class lines. There are no race or class lines in early childhood. These are all acquired by association and sharing with groups actuated by acquired prejudices. All children play together naturally. And play for present adult prejudiced groups is the finest ice-breaker and developer of spontaneous association known.

Again play eliminates the necessity for formal discipline. Wherever the real spirit of play is present autocratic discipline is never needed. Paul used law, discipline, only until he found the free play spirit of Christ, which freed him from the bondage of law. So play frees and makes wholesome living spontaneous. It carries discipline within its own bosom. A playing group disciplines its own members by virtue of engrossment in the organized activity. Formal discipline flies away, is never needed, when play is present. Engrossing activity spontaneously organizing its leadership is the antidote for discipline in home, school or factory.

Our present formal, disciplinary impartation scheme of school administration will experience a wonderful conversion when it partakes of the spirit of play. Why do we suppose a child should sit still to be receptive? Why do we consider the spontaneous play spirit as impish? Why do we think ethical conduct depends on

formal instruction, on imposing of standards? It is because we do not play in our living. We do not understand that activity is essential to receptivity; that play is angelic, not impish; that we become ethical, not by instruction, but by whole-heartedly playing our part as a member of the group. Ethical conduct is a by-product of whole-hearted playing the game of living.

Much of play direction as carried on at present fails to develop play. Athletics as generally conducted with emphasis on the form of response is impartation, training, as over against activity discovering itself by sheer abandon. Whenever the director's will is the motive of action initiative and play flee. It is only when the actor spontaneously throws his whole self into the act that we have play. It is just here that military training as generally conducted so miserably fails. It is so formal and constraining in its approach that it dries up the soul of free activity.

In closing may I point out the super importance of attitude, disposition, on the part of the teacher. If education is that of enlisting full blown response on the part of the child then teaching is done far more through personality than through technique. We can perfect our machinery of education all we please (and this we should do), but we will have to awaken again and again to the fact that it is personality engrossed in living that starts the new bud of life to shoot, that enlists the activities of the child. It is only in the presence of rich, growing, pulsing personality that the child ever plays, ever spontaneously yearns to share, ever really learns.

THE TEST OF PROGRESS.

HON. H. J. CODY, D.D., LL.D., TORONTO.

Mr. Chairman, Ladies and Gentlemen:—

I appear to-night in fulfilment of a promise made many moons ago under somewhat different conditions. I am very glad, however, to have the opportunity of redeeming that promise this evening. Thankful am I, indeed, to have had the opportunity once in my life of being for a time the official head of the great teaching profession in the Province—(Applause)—and of having been able to lay some foundations and to open up some lines of educational advance. I tried, as best I could, to carry on a campaign of education in the interests of education throughout the Province, because I believe that when public opinion is sufficiently aroused to appreciate the value of education, all necessary salaries and equipment will readily be supplied. Yet it is with a feeling of relief that I am able to address you to-night. (Laughter.) I no longer, when I open the newspapers, the *Globe*, for example, in the morning, have to look out for an article or a letter (signed or anonymous, as the case may be) attacking the Department. I no longer have to lie awake at night trying to anticipate the next critic as he suggests new things or finds fault with the old. Care free, somewhat heavier in weight, and not cast-down, I have the pleasure of addressing you, my dear old friends. (Applause.)

Your great Parliament, the Ontario Educational Association, has now come to a close. I am sure many will go back again to their high and holy duties, stirred to new endeavors and with the sacred fire kindled afresh upon the altar of their hearts.

This Association fulfils many purposes. It enables pioneers to present before their fellows discoveries and observations in the department of Education. It is a great means of suggestion. It is a great clearing-house of ideas, and I may venture to say too, ladies and gentlemen, sometimes it is the "Hyde Park" of dissatisfaction. (Laughter.) It enables some to express themselves, to "deliver their souls" and so make their contributions to the educational saving of the country.

I have just been reading a remarkable book on education called "Problems of National Education." I am sure my friend, Mr. Buchanan, will be interested in the book because it is written by twelve Scottish educationalists. It was with real joy that I read the inspiring, challenging and illuminating pages of that book; but I am bound to confess that what touched my heart more than anything else was this fact—they in Scotland had the same problems, that we had, they had the same difficulties that we had, they criticized the Government in the same way that we criticize the Government. (Laughter.) They had the same hopes of better things in days to come under the new Acts, even as we have. I felt that across the leagues of ocean I could clasp hands with those twelve Scottish educationalists and know that we were indeed one. More than that, ladies and gentlemen, there was the same difference of opinion among the educational authorities. (Laughter.) They did not all see eye to eye. Their processes of reconstruction differed, not only in superficial, but even in essential respects. I mention this just to remind you that in England and Scotland and in the United States and in all the provinces of Canada—indeed, throughout the English-speaking world—we are, in these days of unrest and rebuilding, largely facing the same problems, finding the same weaknesses, and confronted with the old task of reconciling centralization with devolved authority.

So to-night before I speak of my main topic, will you allow me, from the point of view of the sympathetic onlooker, profoundly interested in education as a citizen and lover of the teaching profession, and yet with a little knowledge and experience of the inside working of the Department, to offer a few suggestions of an educational character at this stage of proceedings? I offer these with all humility.

(1) Might I suggest that it would be to the advantage of all, if we were a little more sparing in our use of destructive criticism and of exaggerated statement in regard to educational problems? (Applause.) When, for example, a lady teacher describes the *tortures* of the regulations, and a University Principal speaks of our "materialistic and autocratic system of education, without liberty and without a soul," I am inclined to think that both are overstraining the rhetorical figure of hyperbole! (Applause.)

Things really are not so bad as that! For my own part I think it is unjust and misleading to characterize our educational system as materialistic, soulless and autocratic. I say that from a fairly wide experience. (Hear. hear.) May I repeat then, let us try to be more sparing in our use of destructive criticism and exaggerated statement.

It is a curious fact in the history of language that the word "criticize," which means simply to "judge accurately," should have fallen away to a lower meaning. For criticism means, as a general rule, fault finding. May I quote in your hearing the words of Dr. Samuel Johnson: "Criticism is a study by which men grow important and formidable at a very small expense." (Laughter.) Criticism is valuable in so far as it leads to a policy of construction and of united effort. I am sure that the Department of Education will never resent constructive criticism, or helpful suggestion. I am sure that the Minister and his officials will always be ready to receive criticism, suggestion and representation of a constructive character. For the last vice, I think, that besets the Department is that of smug self-satisfaction.

(2) Might I also ask, ladies and gentlemen, that you would occasionally encourage the workers in the Department of Education? If they ever do a good thing—and sometimes they do—(laughter)—don't allow it to pass without a word of recognition. I have carefully read the columns of one of our great Canadian papers for many years, but I cannot remember that this influential journal has ever expressed much approval of anything done in the Department of Education for the last fifteen years. Surely in all that time *everything* was not amiss. I think occasionally it is worth while to encourage the Department of Education. (Hear. hear.) Do not forget all its good work—though you rightly criticize what you deem to be unwise. You know this is just one of our characteristic British tendencies. The Germans made the profound mistake before the war of taking Britons seriously, when they said that the country was going to the dogs, that the Government was hopelessly wrong and that the day of judgment for the Motherland was almost come. Some of you may have noted a cartoon in *Punch* the other day, in which "the man in the street," is looking up at a signboard on which is found this sentence from

a recent statement of the Allied Supreme Council: "High prices are the invariable result of war. We can only make good by hard work and thrift." The "man in the street" is very perplexed; he looks up and says: "Well, if the Allies say so too, there must be something in it; but I always understood the Government was to blame for everything." (Laughter.) Such knocking, as a matter of fact, ladies and gentlemen, does not encourage any Government or Department of Government, even the Department of Education, to advance. I think that few can hold on in the face of non-recognition and persistent pinpricking—their enthusiasm will undoubtedly be quenched. I think it would be a wise policy, in the interest of educational advance, to recognize a good piece of work whenever it is done.

(3) Amid all our development on the practical and scientific side, we should remember, both in our pursuit of practical and scientific subjects, as well as in our devotion to the commonly called liberal studies, that the fundamental necessity is to give a thorough liberal education to all our boys and girls. I believe that there is since the war a revival of humanism. Probably this revival of humanism will protect to a very considerable extent some valuable subjects that have been imperilled in recent years.

(4) It is possible to have too great a reaction against examinations. (Applause.) As Keble well says:

Don't "wind yourselves too high
For sinful men beneath the sky."

Some speak of examinations and discipline in general as though humanity was really of a quasi-angelic character; but it is not. They forget that there is a kind of twist in human nature. They forget that there is such a thing as wrong-doing, and in consequence the necessity of restraints. They forget that all life is made up of a series of tests. While there should not be unnecessary examinations or too many examinations, I think it is unwise and impracticable to suggest the abolition of all examinations. Let us rather try to see that examinations are fairly and justly conducted. In recent years the number of unfair examination papers is comparatively small. In the *Times Literary Supplement*, the other

day I read a short description of the Bolsheviki schools. This description may be of interest to some of our educational apostles of light and leading. (Laughter.) There are to be no home lessons, no obligatory tasks of any sort, examinations are altogether forbidden and all punishments are abolished. (Laughter.) On the other hand, hot lunches every day for all pupils are to be, not only free, but also compulsory. (Laughter.)

(5) In connection with our High School course of study, I am glad to know that good progress is being made with the scheme of introducing more elasticity into the High School courses. The probable modifications in the general structure of the course will be such as to secure the appropriate response to the varying needs of pupils. The difference of sex calls for certain differences in the course of study. In a curriculum, which provides reasonable variety of subjects, the ambitious and individualistic teacher will find the fullest scope for his ambitions and his particular educational ideals.

(6) One of the most difficult problems, I suppose, in this Province, is the problem of discovering the right method of appointing the school inspectors. Are they to be appointed by the central authority, the Department, or by the local educational authorities, as at present? If the inspectors continue to be appointed by the county councils or by the Boards of Education, then it might be well to call them by a different name, perhaps "Directors of Education," a term implying that they are the educational experts for their particular sections. The term "inspector" might be restricted to those officials who are appointed by the central educational authority.

(7) There is another matter, to my mind of very vital importance which for sundry reasons I was unable to deal with during my term of office; but which ought to be dealt with at an early date. I am more and more convinced that the area of school administration in the rural parts of the Province is decidedly too small. (Applause.) This seems to be a mere matter of administration, and yet the more thoroughly you investigate the situation, the more you will find that the determination of this area is bound up with a great many real educational advances. It is bound up, for example, with the question of consolidated schools.

When the Consolidated School Act was passed, I gave fair warning that it was necessarily only a beginning of solving its problem under present conditions; and that modifications would inevitably be made. The assertion of a writer in the *Globe* the other day, that the Consolidated School Act was the mere product of political exigency is without foundation. In the nature of the case, so long as you had as your unit of administration the present small school section, you had to construct your bill under that limitation. Undoubtedly this area of administration should be changed. I should look to a Farmer's Government as the Government that ought to make the change. (Hear, hear.) Every party in the past hesitated to touch this particular problem lest it should rouse the ire of the rural parts of the Province. There will not be the improvement looked for in rural education, until there is a larger area of administration in the country. I do not prescribe what that area should be, whether township or county.

(8) There is one other general suggestion that I should like to make. One frequently hears the statement that ninety per cent.—(sometimes it is put at ninety-three per cent. and I think, sir, you put it at ninety-five per cent. the other night; I don't know that anybody definitely knows)—of the pupils do not go beyond the public school. Now, that statement has, of course, more truth than poetry in it. It is a grim fact. But the statement is usually made as the basis for urging an improvement in the public school system. In fact, some high authorities in the Province seem to regard the improvement of the present public system as the great line of educational advance. This, in my judgment, is an insufficient remedy. How are you going to improve your public school system of education? To meet certain outcries for more practical and vocational instruction in the public schools, will you add to the subjects already taught there? Do you propose to kill the children? Does any sane man expect, that, in the public school, under the age of fourteen, all things theoretical and practical, moral and religious, scientific, agricultural—all the subjects which fit a man to discharge his citizen duties, can possibly be taught? (Applause.) It is because the public schools have tried to respond to this impossible demand upon them, that there has been a real danger of overloading the public school curriculum. Those who say that *the* great educational problem before us in the Province

of Ontario is to improve either by addition or subtraction or substitution, the public school curriculum, and who believe that herein is the great line of educational advance, in my humble opinion, are entirely mistaken. You can easily rectify whatever needs to be rectified by *regulation* in the public school curriculum. Courage and cash are the two great requirements. You can easily do it. The criticisms that the President of this Association made on Arithmetic are, I think, already met by the revised Arithmetic and the revised regulations. You can easily modify your course. You can add or subtract: but what you cannot do, is to crowd into the present limits of compulsory education, *all* that boys and girls ought to know, for the proper discharge of their citizen duties and as a preparation for their life vocation. You simply cannot do it. And, therefore, the real line of advance educationally in this Province is not, I submit, what many public men are asserting, but the extension of the school age and the establishment of differentiated secondary schools or advanced classes where more specialized training may accompany the essentials of a general education. A broad ideal for the public school is to have the fewest possible subjects, taught to the smallest sized classes possible, by the best possible teachers. (Applause.) Then raise your school age. In the long run it will be found that there is no other road of advance. There is no other solution for the problem. It may not appeal at first to the multitude; but it is, I believe, the true solution, and is being adopted by all progressive educationalists the world over. No system of elementary education can provide a completely satisfactory training for a boy or girl who leaves school at fourteen.

What are we doing? At the most critical stage of life, when boys need guidance, control and training, we turn them loose. At this age they have not yet sufficient maturity to choose wisely their life's task. Industry has no permanent place to offer them. The solution of the problem is to extend the school age. This has already been provided by statute. The Adolescent School Act may be proclaimed by the Governor-in-Council whenever the proper school accommodation is available. From the standpoint of the child, who has the right to the fullest development of his God-given faculties, such extension is necessary. From the standpoint of the state it is equally necessary. We ought to get for the state the

best possible service from either boy or girl. Conservation does not mean simply the utilizing of the human powers as they are at a given time, but the utilizing of the human powers as they may be developed up to the highest possible degree. In every democracy ignorance is the greatest danger; therefore, the state for its own protection must try and save its growing citizens from the perils and entanglements of ignorance. Surely, it is good economy to continue the education of boys and girls so that you may get full value for the money spent on their education in the elementary schools. I believe that this extension of the school age will solve a great many educational problems that are now seriously vexing us, such as the problems of promotion, of examinations, of attendance, of over-crowded courses in the elementary schools, of unelastic courses in the secondary schools, and of making free the education in our high schools.

(10) No state ought to renounce its responsibility for the training of the teachers who are to teach in its own schools. Whether this training is carried on through faculties of education in universities, or directly by the state, the state cannot refuse to accept the ultimate responsibility for its efficiency.

Now, for the real subject upon which I promised to speak to-night. It is not strictly an educational topic but it is at every stage linked with education. I wish to speak of "Some tests of progress in a democratic society." We use the term "progress" in a very loose fashion. You will remember the recent words of General Smuts. "Humanity has struck its tents and is once more on the march." But the question is—if humanity is on the march, whither is it marching? Is it marching backward, as would seem almost to be the case in some parts of the world, into barbarism and disintegration? Is the march only a circling? Is it simply going back again to the old evils which we thought we had done with forever? Is the march an aimless motion by which we mistake mere movement for advance? Or is the march a really onward movement towards righteousness and peace, goodness, truth and beauty? Here we are to-day in a great democratic society. Democracy has come to its own in fullest measure. The *Times* "Educational Supplement" not long ago aptly remarked: "We

are at a crisis of history and all our strength and all our devotion are required of us. Democracy has indeed arrived—that is the whole gist of the matter. The time for talking about, for believing in it, or disbelieving in it, has gone by. It is here!" Democracy is confronted with forms of government that are not truly democratic. It is confronted by the tyranny of socialism, which would elevate into dominance a bureaucracy, made up, we would hope, of representatives of all classes, but yet a bureaucracy, a centralization in the highest degree. That is not democracy. It is confronted by the tyranny of Bolshevism, which is a dictatorship of the proletariat—class government of the most debased, exclusive and cruel type. A Russian professor, who was once professor of law in the University of Moscow, wrote in the January number of the *Hibbert Journal*: "The dream of the earthly paradise of Lenine and Trotsky—the dream of the earthly paradise to be brought into being by civil war, becomes instantly the reality of hell let loose." That is not too strong a statement. It is for *democracy* that we stand. Democracy has entered into its inheritance. The world is in most parts reasonably safe *for* democracy, and now we have the problem of determining whether the world will be safe *under* democracy.

In our own Empire the Crown stands firm. Democracy bears true allegiance to it; but the Crown has become the representative rather than the ruler of the people. The monarchy stands as the symbol of national unity and continuity, and appeals to the popular imagination. It is a trustee to secure the power and claim of these great facts of unity and continuity. As representative of the whole common life, raised above every party and section and class in the one Empire, the Crown is an institution of incalculable value to the mighty British democracy. (Applause.) But ultimately the source of ruling power is the people, all the people. It is an inspiring thing to think of a great people with a great history behind it, girding itself to the task of facing its own problems in its own way and working out its own destiny. It is inspiring, but it is sobering as well. Democracy does not carry with it its own divine vindication. It is a form of government to be tested by its fitness to govern. Perhaps it furnishes greater opportunity of political education to the individual citizen

than other forms of government; but it cannot be regarded merely in itself as a golden image before which we must prostrate ourselves and worship.

Democracy, I said, has come to its own; but in coming to its own it has come to its testing, it has come to its trial. There are real grounds for anxiety. We have had many a disillusion in the last year or so. The older prophets of democracy, who flourished from 1830 to 1870, seemed to think that this democracy would bring in an era of brotherhood and of prosperity. Lord Bryce in his "Hindrances to Good Citizenship" very pertinently remarks: "The citizens have failed to respond to the demand for active virtue and intelligent public spirit. . . . Everywhere there is the same contrast between that which the theory of democracy requires and that which the practice of democracy reveals." "One might also say," he goes on to remark, "that the theory of universal suffrage assumes that the average citizen is an active, instructed and intelligent ruler of his country. The facts contradict the assumption." I would like to repeat this, so that it may sink in: "One might also say that the theory of universal suffrage assumes that the average citizen is an active, instructed and intelligent ruler of his country. The facts contradict the assumption." That is to say, democracy is not an idol to be worshipped but an ideal to be served. It will not, of itself, go right. It demands an exacting service and widespread intelligence and public spirit to prevent it from going wrong. It has faced many of the greatest of possible problems—political, social, economic and industrial. Behind all these problems and all the unrest of the day, there is, I think, stirring in the depths of democracy, a movement towards a high ideal and nobler standards of human life for everyone. There is the generous and passionate belief that the lot of all those who toil with their heads as well as with their hands can be and is meant to be made better and nobler. This is one of the hopes of the future. The industrial democracy of the 20th century has this inspiration of a noble vision before it, and because the vision is so great it involves great responsibilities. It demands keeping impulse under the control of knowledge. It demands the keeping of passion under the control of reason. It demands the keeping of self-will under accepted leadership. It

involves all the problems of character, religion, Christianity. Will an industrial democracy be strong enough in dealing with the problems of social economics to test the future remedies by past experience? Will it remember that it is easy to break up an industrial system or an educational system, but very hard to build up another in its place? Will it remember that it is useless to press for such a *distribution* of wealth as would cripple and destroy the *production* of wealth? The testing time of democracy has come and its trial turns upon the civic capacity of the ordinary citizen. Who, ladies and gentlemen, has the largest share in training, in moulding, in inspiring the average citizen? You, the representatives of the teaching profession. (Applause.)

If democracy is going to be marked by real progress, there must enter into it certain essential elements. I mention them briefly. (1) There must be a sense of personal civic responsibility. No form of government depends so much on the character of the individual citizen as does democracy. In an oligarchy, in a monarchy, in an absolutism, the chief virtue is docility. But in a democracy responsibility is direct, personal and inalienable. A duty shared with many others unfortunately seems less of a personal duty. The average man judges himself by the average standard and he does not see why he should take more trouble than his neighbors. So we arrive at the result, summed up in the terrible dictum, that reveals the basic danger of democracy: "What is everybody's business is nobody's business."

You cannot exaggerate the importance of the individual citizen in democratic government. There is ground for misgiving. What does the average citizen really care? How many men and women who have votes really cast them? I tell you, ladies and gentlemen, the apathy of the intelligent is as productive of evil as the anarchy of the ignorant. (Applause.) The one deadly enemy that besets every effort to uplift human life, whether it be political or social or religious, is indifference. Indifference becomes a formidable national danger when the power of government is in the hands of the indifferent. Even in the face of great public issues, a large proportion of the voters do not put themselves to the trouble of even casting their ballots. The indifference of the voter is one of democracy's weakest points. To break up indifference, to increase the

number of people who care, to keep and spread a sense of personal civic responsibility is one of the first tasks of democracy. The citizens must vote, the citizens must watch, and some citizens have to sacrifice their comfort and render public service.

(2) Another essential element in a democracy that will stand the test is knowledge. To foster this is the task of your great profession. The trial or test of democracy depends on the education of the people. The sovereign citizens must at least be educated. They must try to know the difference between knowing and not knowing—a very difficult thing to learn. They must have some conception of what knowledge really is. There is a great want of some standard of discrimination. We are educating people to read; but many are not sufficiently educated to know the difference between good reading and bad reading. We have not yet to any great extent been educated to *think*. While more people read than ever before, the ratio of thinking to reading does not increase in quite the same proportion. We are educated enough to be moved by speech, but, perhaps, not sufficiently educated to distinguish between fluency and real force, between sentimentality and sense, between reason and rant. The only remedy for the dangers of half-education is fuller education. (Hear, hear.) So often the wrong inference is drawn. Some say, "Look at the unrest that is caused by education. Let us leave the people in ignorance." God forbid! That is not the solution. If education is partial or half-hearted or not thorough enough, then let us have fuller and truer and wider education. It is perilous to advance, unless an increasing number of our citizens know something about the growth of our civic institutions, about the character and claims of our government, about the teachings of experience on social legislation and schemes for re-organizing industry and society, about the conditions that make wealth and maintain trade.

The stability of a democracy will largely depend on the number of citizens who believe in knowledge, who respect knowledge and who try to gain knowledge. And you, ladies and gentlemen, the representatives of the teaching profession, hold in your hands the keys of the future, for unless democracy holds the key of knowledge, how can it wield aright the sceptre of power?

(3) The third element in a progressive democracy is support for wise leadership. It is a caricature of democracy to say that it means one man's opinion is just as good as another's. His vote may be but his opinion is not. In no form of government is leadership so essential as in democracy. The difference between democracy and other forms of government is not that democracy can dispense with leaders, but that democracy can choose its own leaders, and on the choice of those leaders depends its fate. Will its citizens choose men independent, who speak out what they think, or men dependent, who speak what they think will please? Men who try to form an intelligent opinion, or men who flatter ignorance and prejudice? Men who tell the mass of its power and show what it can get for its own advantage, or men who tell the mass how to use its power for the public good? Will the democracy choose leaders wisely and then loyally follow the leaders?

I think we all should deprecate unfair, persistent criticism of men in public life. In all conscience they make a sufficient sacrifice, when they try to serve the state, to entitle them to escape much of the unfair criticism to which they are constantly subjected. (Applause.)

(4) Then there is another element, the element of discipline. An ancient philosopher described democracy as government by the passions, the ambitions, the impulses in human nature; and there is always a real danger lest this picture be true. The impulses and ambitions of the great masses of men are always to be respected. It is folly to ignore them; worse folly to suppress them. Wisdom lies in recognizing and guiding. Their good or evil depends on whether they are disciplined by reason and by conscience. We surely need to-day the discipline of law. There is a decline in reverence and respect. I quote the words of Nicholas Murray Butler, of Columbia University, New York, (primarily in reference to his own country): "There is a decline in reverence and respect for age, attainment and authority, and even for law itself." He goes on to point out that the essence of democracy is not subordination but association. The great object of association is obedience to government as the result of a common deliberation through duly constituted authorities. To these authorities respect

is due by every real democrat. The weakening of religious faith, the loosening of the bonds of parental control, the absence of real discipline from school life, are all causes that have led to the undermining of the foundations of respect and reverence. Nicholas Murray Butler concludes his remarks by this summary: "We shall never have a true democracy until the majesty of the law excites reverence and respect on its own account, until the parental bond is drawn closer and children honor their parents as of old; until the school understands that the abdication of authority is not a solution for the difficulties of discipline."

Those are very old-fashioned, archaic, almost antediluvian, but I believe nevertheless true, remarks. (Applause.) Democracy does need discipline; it needs the discipline of law. It needs the discipline of patience so that it may avoid the short cut, the sweeping sudden change. It is possible to forget that the political system that is to be superseded, may be reduced to chaos before it reaches reform. Let the discipline of patience be remembered by those who talk so lightly about "scrapping the whole educational system," changing it radically from top to bottom. That is an undisciplined comment.

We need the discipline of work. Very much so. A recent traveller in France has pointed out that after the armistice there spread over that fair land a regular ergophobia, which being interpreted, is a reluctance to work, and that many are still suffering from that disease. I verily believe that one of the great lessons we have to learn just now is that work is not a curse, and idleness is not the summit of happiness. Rather, is it true, that a man who is working at a useful and congenial task is the only happy man in the world.

I believe that behind many of the radical suggestions in the world of industry there lies the fallacy that the less work you can do the better for yourself and the better for the world. Work is a divine ordinance. Work, under the proper conditions, is a joy. These conditions are that your task is congenial, that it is something for which you are well prepared and fitted, that it is not carried beyond the point of fatigue, and that it is performed under the proper physical and moral surroundings. We need to learn

the discipline of work. I do not think even in school it is altogether desirable to give everything in sugar-coated pills. (Applause.)

Then there is the discipline of leisure. Multitudes are finding they are going to have in the days to come more leisure than ever. That is going to constitute for educationalists one of the great problems of the future—to train people to make good and recreative use of their leisure.

(5) Lastly, the element of disinterestedness must enter into an efficient democracy. The care for the common good has not yet banished all forms of selfishness. Democracy brings with it its own special temptations of self-interest. The majority will always have the temptation to push its own material advantage. The management of immense sums of money will always furnish the opportunity not to use them wisely. If the functions of the state are extended over wider areas of control, then the dangers of interested service will be multiplied. Democracy needs the spirit of disinterested public service, strong and deep and widely spread among its citizens.

Now, ladies and gentlemen, in connection with everyone of these great factors, that measure the real progress of democracy, education has its part to play. The preacher, the journalist, the teacher, alike share in the tremendous task of injecting into our public life these saving elements that alone will make democracy a real helper and inspirer of the people.

The guiding principle in all human development, from the days of the old exclusive Greek state down to the present hour, is the principle of reverence for personality. You can always measure the progress of civilization by these two tests: Has it led people to respect themselves? Has it led people to respect others? Do we respect our own personality? Do we respect the personality of others? You in your glorious sphere, perhaps, have more opportunity than any other class of the community of dealing with the plastic body of coming citizens and moulding all to realize these great requirements of a progressive democracy.

Ladies and gentlemen, the whole world is beginning at last to realize how profoundly important education is. No one can exaggerate the vital value of the teaching profession in the preservation

and development of a sane and really free democracy. You are engaged in one of the most delicate and difficult as well as the most momentous of all offices. I believe that surely, even if not as rapidly as we could wish, public opinion the world over is recognizing the value of education and in consequence the value of educators. The brains of the country do not yet realize their power. The existence of the country and its future depend on brains. People will recognize this more and more; and the way in which they will express their recognition is by defining your professional status. Your professional status is the social estimate in which you are held. It is the pledge of the teacher's value and the teacher's competency. It is the tribute which the outside world pays to your earnestness and zeal, to your efficiency and self-sacrifice. It is simply the common opinion about the value of your work and its worth to the community. I am glad to know that this public opinion is expressing itself in the tangible form of increased salaries. That increase is due partly to the public recognition of the value of education and partly to your own organization and representations. The whole community by this time knows the dangers of ignorance and partial education, the tremendous possibilities that lie on the school, the enormous burdens of responsibility for the future that are laid upon the shoulders of the teachers. I feel that the recognition of your status is real and is growing. You have the approval of your own conscience; you have the knowledge that you are rendering a great service. Do not let any cynical individual say that those things count for nothing. They do count. I believe you will have in increasing measure material expression of the value of education; but all the while you are conscious of the glory of your high calling. You are in a great succession. Think of the men who kept alive the torch of learning through the Dark Ages. You are in their succession. Think of the great teachers in the historic seats of learning in the Motherland—the men who have moulded the soul and the mind of the Empire. You are in their succession. Think far back to the great teachers of Greece. You are in the succession of Socrates, Plato and Aristotle. Think of those great Hebrew preachers, the prophets. They are among the greatest moralists of all the ages. You are in their succession. Do not forget that the greatest of all,

who has left His impress for time and eternity upon all the generations, loved to be called by the scholars in His school, "The teacher." You are in a great succession. You will understand to the full the meaning of the words of dedication which Ian Hay has prefaced to his delightful book, "The Lighter Side of School Life." He dedicates it to his fellow teachers: "The most responsible, the least advertised, the worst paid, the most richly rewarded profession in the world." (Great applause.)

THE COUNTRY'S REQUIREMENTS FOR A SCIENTIFIC EDUCATION.

BRIG.-GENERAL C. H. MITCHELL, C.B., C.M.G., C.E., LL.D.

*Dean of the Faculty of Applied Science and Engineering,
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Canada after her heroic and prolonged struggle in the Great War, has emerged as a Nation within the Empire. She has won the praise of the older countries of the world for her energy, her resourcefulness, ingenuity and perseverance as a Nation at war, both in the field and at home. What we have accomplished and what we have gained in our experience and our knowledge, we owe to many things which are peculiar to us as a nation, some in our possession as a heritage before the war and some acquired during its progress.

We have talked of our part in the war, yes and I fear have boasted a bit, but how often when talking have we given thought, adequate thought, for those things which have helped us win through to the end? In the years that have just passed we have read much in our press and in our various journals and we have heard much from our lecture platforms about the quality of our young Canadian manhood, of our various resources, both material and human, of our ability to mobilize the nation and turn it all into the great Empire effort. Now, that it is all over and we have won the war, how much and how often do we look back to see some of the real causes of that measure of success and how, too, do we look forward to discern what the future has in store for the country measured by these same standards?

It is not the intention here to review all the fundamental or secondary causes which have contributed to our measure of success in both Peace and War, but I wish to draw your attention from an angle from which they are, perhaps, less frequently viewed, some of those causes in which education plays an important part.

No one will say that it was education alone that enabled our men to fight as they did in a war which had no precedent, or that enabled our men and women at home to support them as they did

through years of sacrifice or that made possible the great industrial expansion by which Canada supplied her large share of munitions. But it will be agreed on all sides and this credit has frequently been given to Canada, that it was the intelligence and the high moral qualities of her sons, their independence of thought and action and that resourcefulness and initiative born in a new country, that were the greatest factors in their success. No one will deny that education in its broadest form, had a great influence on these factors. Not only was it the education of the public school, and the college, but the education of the home, the farm, the workshop, the office, the open fields and the great industries which, by the upbuilding of this Overseas Dominion, brought on the sturdy race of men and women who have made this Canada of ours and have made her name known and respected by the nations of the world.

What that particular education of the past has been, whether it be of the home, the school or the field, it is worth analyzing especially after the war is over and we are into the period of reconstruction with its many problems. We have assembled in this Association meeting for the purpose of studying these problems and whilst you have spent the past few days in doing so I venture the opinion that one of the thoughts that has been uppermost has been, "What more can we do in education for the next few years, that will best meet the requirements of the country in this period?" So now after the process of analysis, we must look toward the future to ascertain what we may, what we should apply to all the things we have learned and observed during the war which may be turned to good account for the future.

I presume I have been asked to make this address because I am intimately concerned with the scientific education of the young men of the country, especially in application of science to the arts and industries. I feel a certain hesitancy in presuming to talk on education, because I cannot be considered as an authority on technical education, having only recently taken over my duties at the University. I do feel, however, a certain degree of confidence in presenting to you an idea of what the country requires from its educational institutions, not only as before the war, but especially now as we face the future. For Canada, and particularly this Province of Ontario, requires now a type of education which

will best help the national development in the most direct way, in the most substantial and permanent way that we can devise. It requires such education from the public school upward that will not only develop the brain power of its young manhood to think for itself in independent lines of thought, but will enable that strong mentality to develop energetic lines of action which will enter into all those activities of the country which will ensure its development in the most desirable directions.

What are these most desirable directions for the country's development? We all realize that we must above all, have a national sentiment, a national culture and national ideals. For these we look more than ever to our educational processes for it is only by education either in the home, the church, the school or the college that these can adequately be promoted and fostered. We realize too that an educated, well-balanced and well-informed people are an invaluable asset to any country in which good citizenship is prized as the foundation of its institutions. In these days of chaos in Europe following on the war these qualities and characteristics are brought out in sharp contrast. But we realize also, and perhaps more so, during the war and now immediately after, that a nation's knowledge and dexterity in material things are very determining factors in its prosperity and if it lacks these it will not be able to maintain its place amongst the nations. Its ability to utilize and develop the natural resources given to it by a kind Providence, its aptitude and energy in trade and commerce and its skill in its industrial pursuits are the essential elements of these determining factors and in all of these as well, we recognize the indispensable part which education plays in the result.

So we arrive at the proper relation and the place of education in the country's development and we see that one of the most important factors in it lies in the portion of that education which is concerned with the utilization of our natural resources, with the best application of our industries and with the most advantageous means of serving ourselves and those with whom we trade. Thus herein are the Country's Requirements for a Scientific Education, for it is wholly by the application of science in its various forms that these very necessary functions of the country can be carried out.

I have some apprehension just at this point that I may be accused of overstating the case for urgency of a scientific education and possibly of claiming too great an importance for science in the country's progress. We are all well aware that there is very much learning and education other than scientific involved in the nation's welfare and that the cultural subjects must always hold a high place in our educational scheme. May I allude, for example, to the subject of the Classics? A well-known Cambridge Don in a recent essay on science and culture remarked that one of the defects in a purely classical education is the tendency to lay a too great emphasis on the past. A scientific education, he says, encourages a hopeful habit of mind for the future—(that process should be stimulated in a new country like Canada!) The general increase of knowledge of any kind must necessarily enrich art and literature and the greater the experience of man the more he will have to express and to believe. Life being a process of discovery should not be too greatly oppressed by the burden of past achievement, although we receive so much of our inspiration from it.

Matthew Arnold once said that in culture our aim should be "to know ourselves and the world" and "to know the best which has been thought and said in the world." Thomas Huxley has said that culture implies the possession of an ideal and the habit of estimating the value of things by comparison with a theoretic standard and with this he expressed the conviction that for the purpose of attaining real culture, an exclusively scientific education is at least as effectual as an exclusively literary education. In a recent leading editorial in the Literary Supplement of "*The Times*" the writer must have had these various views before him for he says, "There are two sides to life, the needs and progress of the moment and eternity; and a man, if really educated, is aware of both. So the problem of education, now as ever, is to make him aware of both. . . . Art alone can express triumphantly that value for truth without which science becomes but a means of making money; and science alone can give that precise and enlarged experience without which art is mere connoisseurship or emotional indulgence. The two must not be separated in education and so forced into an unnatural enmity. They are the complements of each other."

These views on the interdependence of the scientific and cultural subjects will doubtless be concurred in by all. However, much we may consider the cultural subjects essential to our national progress developing side by side with the scientific, we must all concede that for the material part of that national progress, the scientific side of our education must be fully developed. And if we are to seize the opportunity of to-day and adequately meet the requirements of the reconstruction with its post-war problems and activities, we can have no hesitancy in claiming the first attention for our scientific education. That this attention is already being given and that the demand throughout the country has definitely been made, we have only to observe in the daily press, the great activities from one end of the land to the other and even here in this educational meeting, a glance at the programme is sufficient indication of the trend in this direction.

What the country demands for its development and what are its requirements from those engaged in education, can be designated only in general terms. The great resources with which we are blessed have been disclosed to us during the past years through means which have been difficult to visualize. Canada and her Canadians had a great field of possibility and a wide area for endeavor before the war, but now with its rich experience and the knowledge of their capabilities, her citizens have found themselves in a manner that few of them could have even dreamed of. Canada was great in her prospects and her resources before the war, but she is greater now. Because of the greater prospects so are the greater responsibilities for their discovery and the utilization. These responsibilities which lie on our citizens must be carried back in turn to those who are responsible for our education and it is on them that the primary responsibility lies the heaviest.

Canada's resources with which we are most concerned and in which the application of science plays the chief part, fall into two great classes. We have more or less visualized our material resources in the past few years—the resources of forest, field and mine—and we have always been aware of these. But now after the war and upon our entrance on the construction period we have awakened to the reallization of our other great heritage—our Human Resources. Whatever value we may have formerly

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thought we had in them, we are now conscious of their great quality and their extent from sea to sea and we are now beginning to discover what a factor they are and what they can be in the development of our country.

It is with the development of these two great resources, the Material and the Human, that the educationalist has to deal. His function it is to combine the two into a happy and useful union, to bring about the greatest good to the country and its citizens and thus it will be his honor and privilege to be an educational god-father to those great projects which will in time mark a greater national development.

Any review of the long inventory of our resources would be superfluous here for we are all familiar with them in that general way in which we instinctively, almost unconsciously, absorb the knowledge of our land. We can and must, however, give some new and special thought to them in the later light of post-war conditions. We must start afresh our study and our preliminary planning for the continued development of projects contemplated before the war and we must set to work to analyze and investigate the newer national and civic problems which have come to the front and into our field of view in these later years. We must go further still—we must plan for the future on the larger things for our country's expansion with a wider horizon than ever before.

In the contemplation of the Material Resources and their utilization in which scientific education must play its part, it is easy to take things for granted. As a mere onlooker in this regard before the war, I frequently wondered whether those in our schools and colleges who were responsible for that scientific education, realized their responsibility in influencing the youth of the country. A still greater responsibility rests on them now. The greater demand from the country in all branches of scientific service and the more widely extended forms of scientific application all call for more students to be prepared for scientific pursuits. This call for a larger proportion of students to be directed into scientific channels lays a greater task on the teachers who have to deal with them in their primary and secondary education in not only directing their general studies, but in guiding the process of selection whereby suitable and promising students are advised and directed

toward appropriate lines of study. If those who are responsible for this early scientific training or for the studies of a general nature upon which such training will ultimately be based, are to exercise a due sense of proportion in carrying out this task, it is desirable that they be well informed as to the extent and the nature of those scientific pursuits in which their students will become engaged in the country's progress.

Now let us look at the type of students a scientific country wants and the foundations which must be laid in the early days of his education—and again I must say I speak not as an educationalist, but as one who has engaged in the scientific work of the country, who has been an observer and, from the outside, has acquired a sense of the requirements for a scientific education. The student who is ultimately to engage in those scientific pursuits which are concerned with the Material Resources of the country must display that quality of mind and that energetic, but studious temperament which will combine to make the man who is always a student and a thinker while at the same time one who is an energetic practical man of action, courageous in putting his ideas and his conclusions into effect. He must be of the leader type, a student who obviously not only leads in thought, but also leads in action amongst his fellows—for how else can he succeed in the struggle for which he is preparing wherein leadership is such a factor? He must have born in him those qualities which give him a good sense of observation, size, form, weight and color; he must have imagination and he must have, too, the ability for quick decision combined with that judgment which is necessary to discern and maintain a sense of proportion. Perhaps powers of observation are among the most important for no one engaged in work of a scientific nature can hope to succeed without them well developed and constantly exercised. That he have a fondness for mathematics is almost essential, but that he have constructive ability to conceive, arrange, organize and execute is wholly essential. In his languages, all very important, especially English and Latin, he may get his first opportunities to display his constructive ability by his composition and expression of ideas. And here let me emphasize how much a thorough education means in the ability he must acquire to give expression in good English through his descriptive powers in speech and in writing. On my return from five years at the

war, much of it amongst the various languages of Europe, I was shocked at the loose, ungrammatical slangy and extravagant English I heard not only on the streets of Toronto, but by students about the precincts of the University. Let me here make a plea for better English, spoken and written, in all our schools throughout the land.

It is not the object here to follow this super student out into life or up to the University—I see you smile at the term super student, but I give it to you in all seriousness because it is the super student who is wanted by the country for the best scientific work. Rather let us now see what there is before him and to what the country calls him and why it needs him; what the country has to offer as a work worth while in its development from coast to coast.

First, we must place the call of the field, of *Agriculture*, for we are still and for generations yet will essentially be, an agricultural country. Only recently have we fully realized the highly scientific nature of the modern agriculture and our war effort has given a great impetus to the intensive nature of this work, both on the farm itself and in the directional work being done by the Dominion, as well as the Provincial Governments. It is not too much to repeat here that frequently used definition of a successful statesman, citizen, or, as it can be applied here, scientist—"He who can make two blades of grass grow where there was but one before." This is what we want in our young country taking up again our reconstructed life. In this we have a great asset in the tens of thousands of returned farmer soldiers, who in their years of service in Flanders learned by daily example the methods of intensive farming practised with such success in France and Belgium. It is for us now to help them by the education of the next generation, both men and women, in the best and latest forms of scientific agriculture in all of its many branches.

Canada calls too in the problems of *Transportation*. We are still confronted with many unsolved difficulties of internal and external trade in which the costs of transportation are of vital importance. The great transcontinental railway systems just now recovering from war conditions will call for the next generation for the best brains of Canada to improve and operate them. The

waterways of the country and especially of the Great Lakes with their harbors in building, will shortly become a large element in our life under the newer post war conditions. Our problems in grain carrying and grain storage will always be with us. In all of these the country calls for men of the best scientific attainments, experience and energy.

In our *Geological and Mineralogical Exploration, and in our Mining* what can be said to be the future? The exploration and examination of our resources is but commenced and every month onwadays we read, especially since the end of the war, of new discoveries. These services for development of the country, whether public or private, have demanded of the best scientific brains we can give. But in the mining and metallurgical industries themselves there is much more ahead for young Canada. Who can say in what direction these will lead or the extent to which our young men will be demanded for their expansion? In these directions alone it may be expected that there will be thousands find employment in the next generation. This expansion is certain because of the position which Canada has reached in this direction of national prosperity.

Our Water Powers and our Hydro Electric Power Developments stand out with such prominence to-day in the great picture of our national activities that no one can say where it is all going to lead. We boast now the greatest system in the world in Ontario grouped around Niagara Falls and the various power centres of Ontario. We await the doubling of the Niagara Falls works and talk of a gigantic new development on the St. Lawrence. Who can say what the country has in store for those who wish to follow the engineering and applied science of such great undertakings which will be in process of expansion for years to come. Here again are requirements and demands sufficient for a new scientific generation. (I count myself almost amongst the past generation already, for it is now twenty-eight years since I went first to Niagara Falls as a graduate from the University of Toronto to engage in water power engineering.)

We talk about *our towns and our cities, our urban and our suburban conveniences and comforts*, of our advance in civilization, and of the new discoveries and applications which make life easier of living. How many of our soldiers have come back from the

old world with the uncomfortable knowledge that our cities and communities on this side of the water are still far behind those of the old land in many of these respects? Our problems of town planning and civic government, our problems of water supply and drainage with all the attendant difficulties of public health and sanitation, our problems of streets, roadways and highways, both urban and rural and all our various problems of *municipal transportation* will absorb the energies and skill of the new generation more and more as our life becomes more complex.

The question of *public health* just touched upon in connection with municipal life, brings into the consideration all of the scientific requirements which surround the complicated subjects of the medical sciences. How can one even outline the nature and extent of the demand which will come during the next decade or two for highly trained scientific men to engage in these general fields which lie apart from those of the medical men in practice? It is extraordinary—possibly partly an outcome of the war—what a great demand there is already for workers in laboratories connected both directly and indirectly with medicine.

In *Architecture*, too, that combination of Art and Applied Science, fields are opening in Canada which are more than ever the result of our acquiring a national style in architecture, decoration and industrial designs.

In the great realm of *industry and manufacture* there is so much to enumerate and there are so many branches of industries which are inter-connected with each other in the complications of modern activities that it is next to impossible to give even a remote survey of their nature and extent. The demand for scientific workers, rapidly becoming greater in all these groups of industry, has now reached such proportions that already the reconstruction has absorbed all the available engineers and applied scientists in the *mechanical, aerodynamical, electrical and chemical engineering* branches. In the iron and steel manufactures, the successors of the munition plants, in the textile industry, the industries in clay and similar products, the paper industries and in the great miscellaneous mechanical and electrical manufactures, there are fields of work ahead which are yet only talked of. But in the *chemical industry* the situation, at present at any rate, is such that

the demand is even greater and it appears as if it will be insistent for some years to come; this is not to be wondered at when it is considered that it embraces many of the most important commercial products in daily use—those of the coal tar industry, the rubber, the paper, the sugar, the oils and the textile, tinctorial and electro chemical branches.

But there is another side to all this. The demands of the country which have been enumerated have been largely those which are the more visible and which appeal more directly to us as citizens of the country because of their application more particularly to our daily life and our trade between ourselves and our neighbors. These are to a large extent the results, the applications of science. There is another phase of scientific attainment for which there is now coming an ever-increasing demand, that of *scientific research*. This has always been a part of the application of science in its various forms, but it has recently taken on a much more definite character and has received a great impetus especially from the various fields of effort in agriculture and industry. Doubtless this too is largely attributable to the war during which the gigantic effort of all the Allies in research within their laboratories and shops has now become a part of the history of the war and a distinct factor in winning it. So there is then the demand and the requirement of the country for scientifically trained men and women to work in research as the co-partners of the actual industries themselves.

Along with these too will come the demand for the *greatly increased number of teachers*, who will be required for the preparation of all this young generation which is to be absorbed into the scientific life and work of the country. But how can I speak of them? They stand in a class by themselves for we who teach and influence the new generation must be with all the others, inspired with the great spirit of work and efficiency which is going to be the watchword of the country. I wonder how many will be required! I wonder will there be enough!

Now what does all this demand by the country mean and what does the future require? We have made a rapid survey of our material resources, our national task ahead of us and the country's requirements in the kind of educated men and women who are to

carry on our work. What of the material upon which we will have to work, from which the supply is to be drawn? The quality of our Human Resources has been well tried in the war and has been proved. The next generation ought to be even better and they will be, with the inspiration of those who have gone before and with the diligent effort which we know will be put forward to mould them into the kind of citizens and workers the country wants. Canadian brains and Canadian energy and the Canadian will to win are what we have as materials and with these, born of a new country, diligence, resource and the spirit of their fathers, the pioneers, with all of these and with the best combination of our Material and our Human Resources, educated to the country's requirements, we are bound to win.

REPORT OF THE COMMISSIONERS OF SUPER- ANNUATION.

SENIOR INSPECTOR J. H. PUTMAN, D.PAED., OTTAWA.

Mr. Chairman, ladies and gentlemen:—First of all I want to thank you for your confidence in electing me for a further three-year term to this position. It is now three years since the Act was passed. It will be three years in July since the Commission was organized. I think we have held sixteen or seventeen meetings in the three years. Necessarily during the first six months we had a great deal to do in organizing our procedure for the future. We were tied down by the Act, as we ought to be. We could not grant a pension to every person who applied for one because the Act strictly defined who were eligible to receive them. Two of the Commissioners were elected by the teachers and inspectors and three were appointed by the Minister. I want to say to you to-night while it would naturally be expected that the two Commissioners chosen by the teachers and inspectors were especially chosen to guard the interests of the teachers, if you could have been present at all of our meetings you would certainly not know who the two Commissioners were who were to guard the interests of the teachers because all five Commissioners have been equally zealous in guarding those interests. (Applause.)

Statistics are said to be very dry, but when they affect us as closely as the statistics connected with the pension system do, perhaps you will permit me to take a minute or two to tell you about the business side of the work of the Commission.

As you know, or as most of you know, pensions of three classes are granted under the Act. First, any teacher who has taught forty years may claim a pension. Second, any teacher who has taught not less than thirty years may claim a pension, taking the present worth of what the pension would be if the teacher were to complete a service of forty years. In the third place, pensions are granted to teachers who have served fifteen years or more and who are wholly incapacitated from further service. So far two hundred and thirty-eight pensions have been granted. I thought a little summary might be interesting. Pensions have been granted as follows: to women, 151; and to men, eighty-seven. The

men are pretty nearly one-third of the whole. Five inspectors have been pensioned, fifteen high school teachers, and the remainder of the 238 have been teachers in elementary schools. Eleven pensions have been granted to persons under forty-five years of age. I believe one pension has been granted to a teacher who is wholly incapacitated for further service and who is only thirty-eight years of age. Ten pensions have been granted to teachers between forty-five and fifty years of age. Those also were totally incapacitated teachers. Twenty-five pensions to teachers between fifty and fifty-five. Forty-five pensions to teachers between fifty-five and sixty years of age. You would expect, of course, that the greater number would be granted to teachers who were sixty years of age or just over, because if they began at twenty and teach forty years, they would be able to retire at sixty, and that is just what we find to be true. Seventy pensions have been granted to teachers between sixty and sixty-five; forty to teachers, sixty-five to seventy; thirty-one pensions to teachers seventy to seventy-five years of age; seven pensions to teachers between seventy-five and eighty; and one pension to a teacher, who is eighty-eight years of age. (Applause.) It may be interesting for me to tell you that the teacher who was eighty-eight years of age had taught sixty-four years. (Applause.) I am also pleased to tell you that this teacher was able to claim the maximum pension of \$1,000. The teacher is Mr. Cruikshanks, of Hamilton, and I am sure you will all join with me in wishing that he may draw that \$1,000 for a great many years. We have granted twenty-two pensions that were less than \$200. Of course, those were, I think, in every case granted to teachers who had taught thirty years and took the actuarial equivalent. They were all teachers who had received small salaries. The Commission has granted forty-five pensions ranging between \$200 and \$300. Twenty-four pensions ranging between \$300 and \$400, eight pensions between \$400 and \$500, five pensions between \$500 and \$600, five pensions between \$600 and \$700, four between \$700 and \$800, one between \$800 and \$900 and four pensions at \$1,000 each. I am sorry to say that at least one of those persons receiving the \$1,000 pension has since died; I think it was Principal Scott.

A number have temporarily given up their pensions by going back to the teaching profession. We quite expected this would happen. For the most part they are teachers who had taken the actuarial equivalent after having had thirty years teaching and who have later discovered that they would like to teach again. Then it necessarily happens that a teacher retires believing herself to be totally incapacitated and the medical advisor honestly believing the teacher to be totally incapacitated and later the teacher will find herself sufficiently restored to health to resume work. It has also happened upon two or three occasions that a teacher who had taught forty years and who took a pension was so much in love with her work that she went back again to teach a few years longer. Altogether eight teachers of the 238, who had been pensioned, have returned to the profession. Sixteen or seventeen have died since being pensioned.

For the year 1919, there were 16,601 public school teachers contributing to the pension fund. There were 1,217 high school teachers and 101 inspectors, making a total of nearly 18,000. I understand that the payments to beneficiaries for the year 1919, were approximately \$70,000. If we divide that by 200, which is approximately the proper divisor, you can see that the average pensions that the teachers are receiving is about \$350, and you can imagine what a gloriously riotous time a teacher will have in this age in spending \$350 a year. But, speaking seriously, I am sure we all feel that we owe a debt of gratitude to Dr. Pyne and to his cabinet, who placed this Act on the Statute book. Because I can tell you from personal knowledge that nearly half of those 200 teachers who are now receiving pensions have only that pension of \$350 between them and actual want.

I thank you, Mr. Chairman, for the opportunity to say a word about this pension fund. I have never done any work that I felt a greater interest in. I think we have the hardest part of the work over for the present—the organization work—and I quite expect for the future that the business can be handled with three or four meetings a year.

REPORT OF THE COMMISSIONER ON SUPER-ANNUATION.

PRINCIPAL R. A. GRAY, B.A., OAKWOOD COLLEGIATE
INSTITUTE, TORONTO.

Mr. Chairman, ladies and gentlemen:—I also have to thank you for the honor you have done me and the confidence that you have placed in me in re-electing me one of your Commissioners and my best services will be given as in the past to the furtherance of your interests in connection with superannuation.

Perhaps before making any remarks on the Pension Fund, it might be well to give the reason why certain members of this Association, the trustees, were not permitted to vote. The Pension Act provides that two contributors shall be elected by themselves to the Commission; the other two members, with the Actuary, are appointed by the Government and therefore represent the Province at large. It seems fair that those who are paying half the contributions should have representatives elected by themselves. I hope the trustees who are not contributors to the fund, will not feel at all hurt by this clause in the Act.

Dr. Putman has described what has been done in the past in connection with the fund. He asked me to give some idea of what the future might bring forth, and the first thing to be considered, which I think is in the minds of all, and which Dr. Putman has touched upon, is the smallness of the pensions, and the different conditions that now exist over those that prevailed in pre-war days when this scheme was first initiated. The cost of living has gone up so that a pension that would then have been a fair assistance in living in the declining days of a teacher is quite inadequate at the present time. It would afford the Commission the greatest satisfaction to increase the pensions, not only pensions that may be granted, but also pensions that have already been granted. This Pension Act is not fixed; it is not like the laws of the Medes and Persians, but may be, and can be changed by the Legislature to meet changing conditions. Some of the questions in the minds of a good many are: Can the minimum pension be increased above \$365? Can the maximum pension of \$1,000 be increased? Salaries are going up and larger contributions are

being made to the fund. These questions were discussed at one of the meetings of the Commission, and the advice that the Actuary would give to the teachers was this: Be patient until the first actuarial investigation is made. But according to the Act that does not occur until 1921 and I would offer this suggestion,—if you think it wise, approach the Minister—the Legislature is now in session—and ask that the actuarial investigation be made not next year, but at once. So that any change that the actuary thinks possible can be made one year earlier; but do not expect the Legislature to undertake to change any of the provisions of the Act without the approval of the actuary.

In speaking about the future of the fund, I can see two pictures. I can see with careful and conservative administration the fund constantly increasing in strength, able to pay everything that has been promised, the teachers confidently relying upon the pension expected, and their minds at ease because of the knowledge of the solvency of the scheme. I can see certain things happening that are not yet happening, the contributions made by those who withdraw being returned to them—at least in part. That should be done as soon as possible. Conditions have changed since this plan was drawn up; it may be necessary in order to induce teachers to enter the profession to grant a return of the contributions, should they withdraw. This might be one way of attracting teachers to the profession. In fire insurance all pay, but only those who meet with disaster get the benefit. So all who enter the teaching profession have a chance of reaching old age in the profession. A great many do not, but a great many do—so that a part of the annual contributions should be, as it were, an insurance against old age; the other part a reserve fund to build up and strengthen the fund, to be made use of afterwards when the teacher arrives at old age.

Another change that I have heard mentioned as desirable is this: Can the widows of teachers who have been superannuated be benefited by the pension? Could the pension be continued to the widow? As most of the teachers are unmarried women, a provision such as that would demand an additional premium, or an adjustment of the pension to make it equitable. Another thing that ought to be carefully borne in mind if that provision is to be

made—and there is no reason why the Actuary could not fix rates for that benefit—is the age of the widow. If an octogenarian, for instance, left a widow of thirty or thirty-five it would be an entirely different proposition so far as the fund is concerned from a widow of say seventy-five.

Again, if there is any lack of foresight in the administration of the funds, or if there is ignorance of the meaning of those accumulated funds, I can see another future, one entirely different from what has just been outlined. The teachers have paid about \$738,000 into the fund, an equal sum is due from the Government, plus interest, but after deducting the amount that has been paid in pensions, there should remain something like \$1,400,000 which is the sum that ought to be at the credit of the fund to-day. If there is ignorance on the part of the Commissioners as to the meaning of this money and the obligations that are to be met by it, or if there is a neglect of the recommendations of the Actuary, I can see disaster ahead of even this scheme. The greatest care must be exercised to protect the fund for those who are paying into it.

Let me give you just one illustration of several schemes that have met with disaster. I refer to the New York Public School Teachers' Fund, established in 1895. No actuarial advice was sought. The teachers contributed one or two per cent. of their salaries. The City of New York made a similar contribution; but unfortunately those who administered the fund did not understand the meaning of pension funds. They did not understand what would result from the policy they pursued. They had what they thought was a large surplus and they granted pensions very freely, they increased pensions that had been already granted, and they granted pensions to those who were comparatively young, to men in active middle life, who went out after they got their pension and engaged in all sorts of occupations. They increased the number of pensions from year to year to an alarming extent. They granted eighty-nine pensions in 1911, and 222 in 1912. In 1915, twenty years after it was established, the actuaries had to be called in because the fund was clearly in an alarming condition. They found that the prospective assets were \$15,000,000, but that the liabilities—evidently overlooked by the Commission—were \$70,000,000, a deficit of \$55,000,000 or double the annual salary

bill of the teachers of the City of New York. After a thorough examination by competent actuaries the fund was declared insolvent and the annuities were cut down, larger contributions were called for and the whole scheme was reorganized. Had they carried it on as at first planned, the contributions that they would have had to ask from the teachers would have been twenty per cent. of the salaries, a prohibitive contribution.

Let me quote from a report on this fund by the examining commission: "The failure of such a system was inevitable from the start. It was hastened by lax administration. The fund was used, for example, to get rid of undesirable teachers. Teachers were retired before they had completed the required period of service. Disability allowances were granted on the sole evidence of the applicant's own physician. No distinction was made in the case of retiring men and women. It was not considered as a basis for retirement. Teaching experience outside of the city was counted towards service retirement, although no contributions were paid for this period and too much reliance was placed on fluctuating revenue from miscellaneous sources."

Again, another quotation from the same: "Actual maladministration or misapplication of funds has played but a negligible part in bringing about this result. The case is clear and urgent for insisting on the need of sound professional advice, not only at the inauguration, but at stated periods in the existence of a pension fund."

I asked the actuary if he had any word for you this evening and he said this: "I recognize that the maximum pension ought to be increased. I recognize that it would be a splendid thing to increase the pensions all around, to grant a return of the contribution to those who withdraw after a certain period; but," he said. "I want all teachers who have been superannuated or who will shortly be superannuated, not to think only of the pensions that they get, but to think as well and equally as thoughtfully of the amount that they have personally contributed to the fund. If they do that, they will make a comparison that will cause them to be, perhaps, less urgent in demanding immediate increase of their pension."

Perhaps quite enough has been said. I hope something will soon be done towards an actuarial investigation. Some representation might be made to the Minister to have 1921 in the Act changed to 1920, so that this actuarial investigation could be made at once. Then we shall know definitely the position that the fund is in, and how much can be expected in the way of increased pensions.

REPORT OF THE SALARY COMMITTEE.

CHAS. G. FRASER, SECRETARY.

The Salary Committee which was provided for at the last meeting of the O.E.A. to carry on a campaign to increase the salaries of the Public School teachers of Ontario, represented all parts of the Province, and was so large that the expense of meeting made such a thing quite prohibitive. It would have taken all the money in the treasury of the Ontario Educational Association to pay the railway expenses of the members for just one meeting. It was decided, therefore, to have a small central committee to meet in Hamilton or Toronto and to which the local members could be invited without extra expense. The suggestions of this central committee were to be sent out to all the members for approval or suggestion and the suggestions that were made were carefully considered at the succeeding meeting.

The committee was appointed by the President on April 24th, and it got to work at once. The Toronto members met on April 30th, and drafted a series of suggestions for the consideration of the local committee which met in Hamilton on Saturday, May 3rd, when Mr. W. F. Moore was elected chairman, and Chas. G. Fraser was elected secretary. The minutes of that meeting were mailed that same evening to the members of the whole committee with the request that suggestions be forwarded to the secretary for consideration at the next meeting which was to be held in Toronto on May 17th.

At that meeting, the correspondence was presented and after careful consideration, a line of action was adopted which has resulted in a very aggressive salary campaign—an extended effort to increase the salaries of our public school teachers in both rural and urban schools, which is just an earnest of what might be accomplished if we were well organized, under the direction of a central committee and a good live secretary or organizer.

Perhaps we might be allowed to complete our report by presenting the memo. we laid before the Honourable R. H. Grant, Minister of Education, some time ago, and from which we are expecting some definite tangible results in the near future.

Memo. There are many reforms required in our school system, but none of them is more urgent than the call for a fair remuneration for our teachers. With a view to making a beginning—a definite, forward step in this line—a committee was appointed at the last meeting of the Ontario Educational Association to take up the matter of the salaries of our public school teachers and as a result of its work, a Salary Circle has been formed, a minimum salary scale adopted and a pledge card prepared and extensively signed. Now, it is proposed to form a business federation of the teachers of Ontario in association with the O.E.A.

The first scale adopted was a very modest one indeed, providing for (1) Rural teachers and the assistants in urban schools; (2) For principals in smaller schools, and (3) For principals of larger schools. It provided also that the members of the Circle would not apply for a position that had been made vacant by reason of the trustees' refusing to pay the salary required in the scale.

But the continued increase in the cost of living has compelled the committee to propose a second scale, whereby a teacher with a permanent certificate would receive at least, \$1,000—those with an interim certificate to receive \$800 and \$900 for the first and second years.

Our purpose is to enlist the sympathy and active co-operation of you, the Minister of Education, and your Department, so as to do something practical and effective in support of this movement.

The cost of training or educating our children should not be borne entirely by the locality in which they are raised, because if the work is well done, the child will become an asset, not only of the township or the county, but of the province, the nation or even of the empire; and while we look to the parents to feed and clothe the boys and girls, the cost of the education of the children should be paid on an equalized assessment of the township, the county, and the province, or even the nation.

Our children are the most valuable natural resource of the nation—the value depending upon how well the training is done and the spirit which actuates their lives. In fact, it is the human factor which gives value to all the other resources, in the nation's production and consumption. This shows that the work should

be carefully planned and liberally supported by the general public. This principle is recognized now—only in a local way. The child of the community is given an education at the cost of the section; but too often, this education is subjected to the niggardly influence of some rich, childless or bachelor trustee, who is in charge of the work.

With the exception of the school grant, the maintenance of our public schools was originally borne by the section. Some of the sections, on account of the haphazard way in which they were formed, were large and rich, while others were comparatively small and poor, and the rate of taxation varied very widely. To pay a fair salary, the latter found it a burden to maintain any semblance of a school; but too often, the rich section has wished to maintain no better school and pay no better salary than the poor neighboring section.

With a view to equalizing this responsibility, a law was introduced to defray part of the expense on an equalized assessment of the whole township. At first, this amounted to \$150 for each section with an additional smaller amount where an assistant teacher was employed. This amount was looked upon as a township grant, and was to be devoted only to the paying of the teacher's salary. Gradually the amount of this township grant was increased until now it is \$300 for each principal and \$200 for each assistant. This principle of broadening the field of responsibility could be extended still further, and the county made the unit of taxation instead of the township, the amount raised in this way being increased to at least \$600 for each teacher employed—principal or assistant—whether in urban or in rural schools.

Then a further extension of this same principle could be adopted, whereby the Province would assume a definite responsibility in this regard, by paying one-half of all the teachers' salaries beyond a stated amount—say \$700. In this way the maintenance of our educational system would fall partly, but definitely on (1) the section, (2) the county, and (3) the Province; and this would be a long stride towards the general adoption of County Boards of Education and consolidated schools throughout the Province.

If the O.E.A. should approve of the proposal which your committee makes through Mr. Martin Kerr, of Hamilton, and organizes a business federation of the teachers of Ontario, the work of this committee will be carried forward under a new name; but the experiences of the past year will indeed be valuable material for the new organization.

If the proposal is not adopted, we recommend a continuance of this committee, broadening its scope to include the public and separate schools, the continuation schools, the high schools and collegiate institutes, the president elect in consultation with the chairman and secretary of this committee to name the central committee.

Respectfully submitted,

CHAS. G. FRASER,

Secretary.

ELEMENTARY DEPARTMENT.

PRESIDENT'S ADDRESS.

N. C. MANSELL, SUPERVISING PRINCIPAL, SAULT STE MARIE.

Fellow Teachers:—

It is with a great deal of diffidence that I attempt to give anything in the nature of an address before this intelligent audience, this morning.

I wish to thank you for the honour you have bestowed upon me in electing me President of the Elementary Department, consisting as it does, of so many very important sections and sub-divisions. I am sure that there are many others who, living nearer the City of Toronto would have been able to give much more time to the work, and I am very sorry indeed that I was unable to be at the meeting of the Board of Directors and did not know that I would be expected to give an address until I received a copy of the programme.

I at once began to look around for a subject, as none had been assigned to me. After looking over the situation in our own city, I finally decided on what I consider the greatest problem with which we, as educationists, have to deal; and while I make apologies for myself as a speaker I make no apology for my subject: "The Foreigner in Our Midst."

There is no more important subject nor none that should receive greater consideration than that which deals with the problem of introducing the thousands of people from far-off lands who have flocked to our country during the past years to Canadian citizenship, and who will continue to come so long as they find conditions in our country better than the conditions in the countries from which they have come.

As a result of this tremendous human influx from practically all over the face of the earth, we have, in Canada, to-day, large areas populated with unassimilated groups, with varying social ideals and varying languages, and varying ideas of Canadian citizenship and loyalty to the British Empire.

Although the immigration problem is a national problem, the education of the people is a provincial problem; but the provinces in dealing with this question of racial assimilation, from an educational standpoint at least, must regard it from a national point of view.

Let me call your attention for a moment to the population of Canada. The last census gives that population as 8,075,000, which represents fifty-three nationalities speaking eighty-five languages and dialects.

In Manitoba forty-two per cent. is Non-Anglo-Saxon; in Saskatchewan, forty-five per cent. is Non-Anglo-Saxon; in Alberta, forty per cent. is Non-Anglo-Saxon; and a similar percentage in British Columbia, which has also its Oriental population. In Northern Ontario forty-five per cent. are Non-Anglo-Saxon, one-third is French-Canadian.

In 1911, the origin of the people of Ontario was as follows:—

English	884,432	Hindu	17
Irish	608,137	Indian	23,044
Scotch	424,873	Italian	21,265
Other British	9,657	Japanese	35
French	202,442	Jewish	27,015
German	192,320	Negro	6,747
Austro-Hungarian	11,771	Polish	10,602
Belgian	633	Russian	12,618
Bulgaria & Roumania	1,483	Scandinavian	8,205
Chinese	2,766	Swiss	1,930
Dutch	35,012	Unclassified	36,921
Greek	1,304		

In 1911, the origin of the people of Sault Ste. Marie was as follows:—

British born, in Canada	7,267
British born, in British Isles	1,116
British born, in British Possessions	34
Foreign born	2,558
Or very nearly twenty-five per cent.	

Where do we find these people representing so many foreign nationalities? They are scattered throughout the length and breadth of our fair country, in our cities and towns, as well as in our rural communities. In our industrial centres we find them in large numbers settled by themselves in what is known as the foreign quarters; and if it were not for the foreign labourer many of our industrial plants would not be able to operate.

The great trouble in the past has been that nobody cared where this industrial labour came from, so long as we could get the cheap industrial product. We did not seem to care whether the labourers had instincts for democracy, or whether they were illiterate, so long as they had two hands to work with, and could make industrial products cheap.

What are the facts respecting illiteracy in Canada? According to the census returns, in 1911, the following number of persons over five years of age could neither read nor write, in any language.

Alberta	41,510	P. E. Island	6,380
British Columbia ...	41,407	Quebec	216,639
Manitoba	52,333	Saskatchewan	57,738
New Brunswick	43,114	Yukon	1,087
Nova Scotia	44,838	N. W. T.	11,182
Ontario	147,225		

This amply shows the extent of the illiteracy in all the provinces and Ontario certainly cannot point her finger at any of the others. Of course, illiteracy and inability to speak English are two distinct problems, but so far as we are concerned they must be dealt with together.

The tendency to illiteracy among certain racial groups which settle in colonies and are, therefore, largely segregated from other peoples is very marked. The average percentage of illiterates in such settlements probably reaches as high as fifty or sixty per cent. Among the foreign nationalities, illiteracy and inability to speak English are usually very much greater among women than among men.

It has been pointed out that, in a democracy, the schools should seek to educate any person who needs to be educated, for the safety of the democracy, as well as for the happiness and intelli-

gence of that individual as a citizen. We have not only to educate them in the ordinary courses, but we have to interpret to these newer citizens, the spirit of Canada, and beyond that, the spirit of the Empire.

There is at present a very great danger of limiting our education to the teaching of English; but this may be very dangerous unless this teaching is accompanied with British ideals. What we actually have in Canada to-day is fifty-three viewpoints. What we should aim to obtain is one viewpoint, one feeling, one impulse—not just one language.

The loss to Canada, as the result of illiteracy, is tremendous; and it is time that some definite scheme was formulated, whereby this terrible menace to our national life can be removed.

We cannot say that we have done much in the past, when, there are many children born in Canada, who have been allowed to grow to adult life without being able to speak a word of English, and without any knowledge of Canadian ideals. Practically every city and town in our Province, as well as many of our rural communities, must have this problem to deal with.

I know only the conditions with regard to my own city and very little about that I often think; and I would not presume to say what should or should not be done. I should be glad to hear how other places deal with this problem and would be pleased indeed if from the discussion some real action might follow.

In the past it seems to me we have been raising foreigners instead of Canadians among these people. We should see that every child born in Canada should have the opportunity to develop into a real Canadian citizen. Every facility should be provided for these people to learn our language. We must instruct them along the line of Canadian citizenship, and do our best to overcome the illiteracy.

Why are "National Homes" being erected all through this country by various foreign nationalities? It is partly because these people know nothing of our citizenship and they desire to meet together socially; but I am afraid it is often chiefly because there are among them those who do not want them to become Canadianized. We should be the ones to erect the National Homes, or use our schools as community centres with trained

leaders in charge. This work in the past has been left chiefly to the social workers in our churches and different organizations, but it seems to me, properly to belong to the Department of Education.

Our schools in these districts should be the very best, not only in the matter of buildings, but in ventilation and equipment including the most modern inventions. They should be models of cleanliness and, above all, our teachers should be mature and experienced, enthused with the missionary spirit and specially trained for this work; and I believe should have either special courses with special books of instruction, or be given a free hand with our present course of studies.

The classes in these schools should be much smaller than our regular classes and we should have teachers available for the factory schools or home schools at night. Our night schools at present do not seem to meet the requirements of the masses of these people. In our city the night schools are taught principally by the high school teachers and the courses seem to be above the average foreigner.

If the mothers were allowed to bring their children to the school, in the evening, where they would be taught sewing and English and the children, under competent directors, taught to be clean and to play proper games, and taught proper manners and ideals, they would soon want to improve their home conditions. I think there should be a good night school in every illiterate foreign quarter; and generous grants should be set aside for this purpose.

In Sault Ste. Marie we have a public school population of about 3,000; and of these about twenty-five per cent. are either of foreign birth or parentage.

We have ten public schools and no school without foreign children; but we have one school, practically, all foreign. I might give a little of the history of this school. In 1911, I was principal of a four-roomed school in the west end of the city, and as the school had become so over-crowded that we were using the woodshed as an extra class room, the School Board before building began to look into the cause of the over-crowding and found that we had on our registers many pupils whose parents were separate

school supporters; but as our separate schools were chiefly French, the other foreigners preferred to come to the public schools, where they were not compelled to learn French. However, the School Board did not think it their duty to educate these people who were supporting the separate schools and consequently, in May of that year, seventy-two pupils were sent from our school. The parents were much annoyed, and particularly so as it was too late to have their taxes changed for that year. Many of them, however, paid the required fee and returned to our school and the building was enlarged to an eight-room school. This seemed to meet the requirements until 1913, when the school again became over-crowded and again came the search for separate school supporters, but the foreigners were ready this time and had a petition signed by a large number of property owners asking that a public school be built in their quarter so they would not have to send their children so far and promising to become public school supporters for a period of twenty years. This school was built and named McFadden School after the Chairman of the School Board, who had engineered the building of the school. The first year, this school was placed in charge of a man who did not make a success and another man was tried with the same result; but in 1915, the school was placed in charge of Miss A. McCrea, a teacher of experience on our own staff, whose enthusiasm for the work has made the school one worthy of note. When Miss McCrea took charge of this school, there was an attendance of eighty-one pupils; but it has increased until now we have an enrolment of 236, consisting of a kindergarten of forty pupils, seventy-four in the primary, twenty-six in the first class, forty-four in the second class, thirty-two in the third, and twenty in a junior fourth class.

Three pupils from this school are in the high school. One little Italian girl, this year, took the scholarship in the first form of thirty-nine pupils. This school, at the present time, is composed of thirteen Assyrians, three Poles, six Austrians, twelve Finlanders, two Swedes, four Russians, two Anglo-Saxons and 208 Italians.

In our King Edward School, we have nearly fifty per cent. foreign. In the David Kyle School, we have seventy per cent. and no school is without some foreign pupils.

Now, how are we going to help these people best to become good Canadian citizens? Are we to encourage segregation and educate them by themselves; or will we force them to attend other schools where there is a majority of English-speaking pupils?

Why could we not have a conference of these teachers as a part of our Public School Section, where they could discuss their methods and decide how best to deal with the problem and make their recommendations through the proper channels to the Department? I should be glad, indeed, to see something being done along this line and if the next year's executive could persuade some enthusiast such as Miss McCrea to address the Public School Section or arrange such a conference, I feel sure that much good would result.

Let me again thank you for the privilege of addressing you and for the honor of being your President.

PRESIDENT'S ADDRESS.

"THE OTHER SEVENTEEN."

A. E. BRYSON, PRINCIPAL COBALT PUBLIC SCHOOLS.

Permit me, Sir, to convey to this splendid convocation of fellow-workers my appreciation of the opportunity afforded me of occupying, throughout the year now closing, one of the most important chairs in connection with the O. E. A.

I desire also to thank, most sincerely, those who have so generously aided me in the discharge of my responsibilities and who so ably assisted in the preparation of the programme now before you, which programme, I trust, will proceed pleasantly, create much interest and prove of incalculable good.

While we pursue "the even tenor of our way," passing from the completion of one function to the fulfilling of another, there is no problem so fascinating, because of its varied and compelling interest, as that of human living; for the thread of investigation, the desire of adventure, the inclination to experiment extend from the beginning to its consummation. And yet a knowledge of procedure is not essential for a beginning.

This experimental principle so characterizes all human living that life fails to be kept within definite bounds. It partakes rather of the nature of art which can be procured only through self-activity and self-effort, every effort proving a basis for higher attainment, every achievement an inspiration to greater conquest, these preceding even the kindergarten age, and culminating only at life's sunset.

We are endeavouring to bring the influence of education early into the child's life when it is ushered into the great storehouse of human experience, placed in possession of some of these treasures garnered from the past, that he may attain unto his desired efficiency or reach his anticipated goal with a minimum amount of delay.

But essential as this may be, education implies much more; the development of character, the attainment of power, the acquisition of a finer intellect, a quickening of vision, and stimulating one's action. To sum up—education teaches us how to live.

The school experience and the after life have been complementary in this educational process, the latter playing the major part, while the two predominating agents in this development being, perhaps, our human environment and our life task, from which not even the humblest labourer is debarred, all having access to associations and labour being the common lot of all.

Why so frequently do two individuals, possessing equal opportunities reach goals of such unequal value? The one trading with what capital he had, placing himself in position to take advantage of the low price, found himself prepared for the door of larger opportunity with its increasing avenues for service; the other made little effort to endear himself to his friend, retrograded unconsciously only to be outdistanced by his aggressive, former companion.

Living is unquestionably man's real vocation, his greatest task, an investment of vital importance. Selection of parentage being beyond his control, he brings into this supreme undertaking many things which may work his weal or woe. Yet, however small his initial capital may be, nature endows him with one excellent gift—just twenty-four hours a day, saving which necessitates their being spent. And the more we use them to accomplish things worth while, do we multiply in proportion our character, our intellect and our power.

Seven of these four and twenty periods are spent in sleep. What shall be done with the other seventeen? Six of the other seventeen find us professionally engaged as educationists wrestling with problems not entirely of our own making, while patiently and diligently endeavouring to unfold a young life. Standing, as we thus are, identified with a vocation par excellence, the quality and permanency of the service rendered our expanding youth, together with the civic power with which we impress the state, will materially depend on our use of the other seventeen.

Multiplication plays a larger part in our lives than addition. Yesterday's increments multiply to-day's inventory; yesterday's wisdom, discretion, action, and expansion become to-day's capital.

Infinite time and opportunity failing us for recreation, it behooves us, therefore, to double our diligence, enlarging our potentialities, strengthening our investments, expanding our

horizon, and extending the radius of our beneficence. For, if the stream of opportunities fail to operate the wheels of our being, then our building for the future, or our superstructure for eternity remains unfinished and imperfect because of the misused recreative margins—the other seventeen.

In youth play precedes work; in adolescence, vice versa. Returning in the evening, as we do, to our marginal hours, when the arduous labours of the day are done, from swaying youth into proper channels, through assiduous toil and intensive sacrifice, feeling that our marshalled forces are almost exhausted, we may be excused somewhat if our first incentive be for rest. We are, now, upon the threshold of our marginal life where a legion of avenues invite our volition. And, now, with distance between us and the worries of the day let us give some consideration to a few of the multitudinous ways wherein recreation may be accomplished.

Nothing has more to do with our future happiness than the peculiar bent of our leisure meditations or to the wise choosing of pathways during our volitional hours.

Dissipation is our worst enemy. Its forms are as varied as those of a masquerade carnival. We seek the newspaper, so easily accessible, as the "market for current opinion, current literature and current history." Is half an hour per day too long to devote to this medium? Far too long for many publications, sufficient for the best. To remain longer is to misplace values.

The magazine follows in the wake of the newspaper very closely and like it bears its toll of casualties. I am referring, of course, to the one of light content. One prominent editor has said that there was no use, during the tourist months, of giving a serious article to the public. That there is a great demand for his summer stories seems to substantiate this astonishing utterance. Let us rather thirst for and linger with the currency above our heads, remembering that those shoes only are waterproof, whose seams are bound by the threads of character.

Space has been given to the tendency so prevalent to-day to reading something superficial, though possessing interest and a charm. But it is exceedingly imperative in this age or period of unrest and shifting opinion, that time be devoted to hard reading,

vigorous thinking and careful meditation. If we are to be leaders, for our peerless vocation implies it, then we must labour long and persistently at intelligent thinking which shall put edge on perception, breadth to comprehension, and poise to action. May I pause long enough here to say that herein lies to a very marked degree the great factor towards eliminating the "low salary."

In the realm of the beautiful, dissipation may run rampant as exemplified by a quotation from Prof. James. "Even the habit of excessive indulgence in music, for those who are neither performers nor musically gifted enough to take it in a purely intellectual way, has probably a relaxing effect upon the character. The remedy would be, never to suffer one's self to have an emotion at a concert, without expressing it afterwards in some active way. However small the expression, let it not fail to take place."

Certain periods should be set apart for pursuing some definite, intellectual appeal throughout the years. For the influence on the whole life throughout its future will prove astonishing. Such intensive systematic pursuit will bear fruition, during the pedagogical activities, a hundred fold.

To convey to others how to live, we must learn the secret ourselves. Hence, to possess ourselves of this secret, we must, in these days of "superheated civilization," devote some spare time to nature, whose language never wearies, whose knowledge never burdens, whose lessons prove so timely, whose legionary tongues have such charms, whose beauties such brilliance, whose breast brings calm and rest. Some of the greatest literary productions of the immediate, or remote past, have come from the pen of nature's most intimate students, who,

"For that time were lifted above earth,
And possessed of joys not promised in their birth,"

conversed with angels and immortal forms. To gain nearness to "the most perfect expression of the most perfect mind" one must listen long to the harmonies of nature, going forth each day a greater friend of our race. As witness the rise of modern nursing which dates from the time Florence Nightingale's passionate love for nature changed from nursing a shepherd's dog to nursing humanity.

In this age of strenuous haste, we should not neglect acquiring the habit of being alone, living with oneself, gaining in the solitude that "balance of power" so essential on returning to the vicissitudes of our daily task.

There is a marked tendency to-day to give too much attention to those who are either undeserving it or do not require it. During the hours of our choosing, special effort should be made to deepen our friendships with those most intimately associated with us. As one writer has expressed it, "Courtesy is the atmosphere of personal life, covering the bare rocks of human reality with a garment of living beauty." Behold David and Jonathan with love surpassing the love of women—Dante and his intense love for Beatrice—the cords of devotion binding Tennyson and Arthur Hallam. "Friendship cheers like a sunbeam, charms like an enduring story, inspires like a hero, binds like a golden chain, guides like a heavenly vision." True love, fired by enthusiasm, wrests victory from defeat as witness Wilberforce's unflinching and continuous devotion to a cause which ushered slavery into freedom and the serf into citizenship.

A great deal might be said in favor of devoting much of our leisure hours revelling in our great art productions—the highest achievement of human effort—to be transported from the densely thronged valley of human activity to those heights where genius loves to dwell.

Thus in our efforts to add cubits to our character, efficiency and power, that we may give purpose, unity and efficiency to the growing life, we shall be able to say:—

"This is my work, I am the one
By whom this work can best be done."

If between nine and four we hope to mould our youthful citizens into clear thinkers, assiduous students and worthy adjuncts to the state, then, between four and nine, we must spend much time in crystal meditation, strenuous labour and noble living for the quality of our life determines the coinage of our wealth.

"Side by side let us work our part
That light may broaden and law command."

If we desire to minister unto others, unto ourselves must we minister first. Let us take time while we have opportunity to cultivate in our garden, and at the dawn of the new day we shall go forth in possession of wealth that shall make our youthful numbers rich.

By the judicious use of the spare hours of his earlier life, Dr. McIntyre of continental fame, rose from erecting church edifices to ministering to congregations, from material structure, to spiritual edification, a physician of the spirit.

David in his stripling years tending his father's flocks, filled his leisure hours mastering an art which afterwards brought him recognition, affluence and a throne.

Dr. Henry Barnard, the first Educational Superintendent of the United States, a man of vision, who, in season and out of season, proclaimed fearlessly and energetically the message of that vision, remains a majestic figure in the history of American education worthy of the veneration and gratitude of all.

Samuel V. Merrick, a young man with scarcely a mechanical idea, filled with the determination to succeed, and a true sense of his requirements, linked himself with Prof. Keating and the Franklin Institute had its birth. One of its first students, formerly a bricklayer, designed the dome of the Capitol of Washington, while Merrick himself became the first President of the Pennsylvania Railway, a great deal of whose success is attributable to his marginal aggressiveness.

Not because of his journalistic labours, for years, in New York, will William Cullen Bryant be remembered, but by the poetry which he penned outside the hours of his office.

During his recreational sessions, which, unfortunately, too many of us waste, John Stuart Mill gave to the world a memorial on political economy while for thirty-five years he laboured as an employee of the East India Company, of London.

The literary productions of Matthew Arnold which are such a befitting monument to this distinguished writer and thinker, were forged during the spare leisure at his command.

John Ruskin, to whom was given an open vision acting under intense action, spent many of his spare hours along thronging streets, looking through the open fronts into the crowded shops, studying fatigued life as it toiled in cramped quarters and fetid atmospheres, seeking the causes of the various scapheaps of humanity, which so frequently met his gaze. Soon penury and wretchedness disappeared, frugality and self-support quickly supplanted want and poverty through his unstinted generosity and alabaster sacrifice.

At the age of twelve, Thos. A. Edison, the son of poor parents, began his public life as a G. T. R. news boy. As his train sped from station to station, he lost no opportunity to devour all the volumes his limited means permitted. Later, his leisure train hours were employed, printing a paper. At the various depots he was busy learning telegraphy from the operators, every advance a preparatory step towards his ever-increasing productive future. Thus led through the school of adversity he made the margins of his eventful life milestones to world recognition.

Mary Ware, returning to enjoy a greatly needed furlough, discovered on the way a fever-stricken community and turned aside to restore the suffering to convalescence.

From the time the wise men visited the Babe at Bethlehem, the world has recognized the sanctity of childhood. How can we better employ the other seventeen than by giving it over to the study of child emancipation, through community uplift, social purification, scattering the estrangement between the indifferent and ambitious poor and the negligent and progressive rich, becoming clear, vigorous thinkers, vanguards in progressive activity, producers of national bulwarks that will withstand not only the bolshevitic tendencies of our age, but will prove enduring monuments when tyranny shall lie buried in the dust.

How we vitalize our sacred trust, how we measure up to the magnitude of our task, will undoubtedly depend, therefore, on the other seventeen investments. As our power to use to-day depends on our use of yesterday, so will our dynamic influence be on the "golden glow and after glow" of life, something worth while attempted, something worth while done will, when the curtain falls, merit the "well done" benediction.

Hence comes the call anew
 To us, who, forth, the child do lead,
 To fields expanding and to visionary heights,
 To clothe ourselves with larger powers,
 To render to the coming state a service
 Unexcelled by sacrifice replete.
 With outlook broad and sympathy intense,
 Love comprehending the magnitude of task,
 Of piercing the infinite mystery of man,
 And giving him sublimity of life,
 Spending with ne'er a thought of cost,
 Creating life by life's own sacrifice,
 And culturing for duty and for opportunity.
 The door, to larger life, ajar now stands
 For those, who, 'neath their wings, have hands.

Fellow-workers it is your privilege as well as my opportunity so to equip these background investments, the other seventeen, with our rarest acquisitions, the summit of our capacity, that we may be to wide neighborhoods of men, but more particularly these young incarnations of humanity, the budding age entrusted to our keeping, gold, frankincense and myrrh.

ENTRANCE EXAMINATIONS AND OUR FUTURE POLICY OF EDUCATION.

Mrs. A. C. COURTICE, MEMBER OF THE BOARD OF EDUCATION,
TORONTO.

Now that the requirements for the High School Entrance are to be radically changed and the barriers let down so that pupils may pass from the elementary to the secondary schools with more freedom, it is worth while to consider in this connection our future policy of education. We claim to be a democratic country. As education is an essential factor of democracy Canada's type of democracy will depend largely on the policy of education she adopts now.

Examinations to determine whether instruction has been assimilated and whether the pupil is ready for a forward step is one thing.

A formal entrance examination to decide a child's destiny by answering a few selected questions out of hundreds that might be asked and answered is too much a game of chance to be consistent with the democratic desire to give every one an education, every child a square deal. Our business is to make the first six or eight years of elementary education more efficient in time and knowledge, application and discovery of knowledge and inspiration. How to hold boys and girls of twelve and fourteen until they learn better what it is to be Canadians and what working niche in the world they are best fitted to fill, is far more democratic than it is to set up machinery like the entrance examination which necessarily puts a premium on memorization and discounts the child's effort to reason for himself. It also puts every child of a large class through the same mould despite their varying kinds of ability and rates of progress. San Francisco State Normal School has kept records of the progress of each child through each grade's work in each subject. It was shown in completing a certain one-half year's work in Arithmetic, the fastest child took only nineteen hours, the slowest 128 hours, while the rest were scattered between nineteen and 128 hours, so that out of fifty-six pupils, only four took more than the standard maximum of ninety-five hours. The

other fifty-two pupils all took less time. Trying to force children widely divergent, all to go at the same rate leads to serious evils. It slows down the progress of the whole school, since most children could go faster than the pace set by the system. The majority of children are in the grades longer than they should be. Those who could go faster are retarded and those who could go slower are retarded still more by making them repeat a whole term's work if they fall somewhat behind. The retardation of the whole school leads to the fact that the majority of Canadian children go out into the world to take their part as citizens with less than the education provided for them.

The best thing for children and for the country is to prevent those of the elementary school leaving without better preparation to think for themselves and to earn a living for themselves.

We may not need special types of schools, so much as we need a re-organization (accompanied by a change of methods) of the schools we have, so that they will fit Canadian youth for complete living. Progressive countries are stressing physical vocational, moral and social elements of genuine culture as necessary to a growing country. It costs money and brains to prepare for citizenship, but it costs more for unpreparedness. It is our habit to try to cure defects instead of preventing them. The child's unnatural life in school too often fails to develop reliability, industry, good health and intelligence.

Schools overcrowded, poorly ventilated, physical activities repressed makes children anemic and tubercular. Then we establish open air class rooms to cure the children we have made sick. In the same way after the children have plodded along for six, eight and twelve years and have failed to secure any preparation for life's work we send them to some sort of a hospital to adjust the moral, mental and industrial cripples made by the school before sending them into industries. No money spent on special school hospitals will make up for the wasted life of children packed fifty or sixty in a room trying to put them all through the same mould. Neither will the wasted life in the city streets be easily made up.

There is another source of waste, which, if it can be directed and controlled, is a power for good, but let loose as it is to children day and night is a menace to the health and beauty of childhood.

I refer to moving picture theatres. Parenthood has apparently fallen down in its responsibility to childhood in this particular and it will take the most careful co-operation of our best educators to put the moving picture and the child in right relationship.

The school curriculum and the school administration must change, because home conditions have changed, industrial and commercial conditions have changed, and there is a new type of boy and girl to deal with. It is hard for some teachers, some parents and even some trustees to understand that the whole world has changed. Thousands have died that these changes might be made effective, and that they might make our country a real democracy. To be worthy, fight against the evils; promote what is good and helpful.

England has seen how her system of education lacked in anything like universal, physical and vocational expertness.

The Education Bill in England, Wales and Scotland and Mr. Wirt's contribution in the Gary Schools has made it possible to secure for all children a larger measure of play and work opportunities, which educators have been pressing for years as essential to a well-rounded education.

In Alaska we are told that the teacher and the school will be found as the centre of commercial activity in actual operation. The teacher is guide and leader and everything else that commerce may demand. To be teacher in the narrow school sense is the least of the teacher's duties in Alaska.

Reindeer industry is worthy of notice. In N. W. Alaska, the reindeer industry is the main one to furnish a vocation that will guarantee food, clothing and transportation, there being 145,000 reindeer in Alaska. The teacher directs the development because it is a fundamental process of education. Through the training in herding, driving, caring for and ultimately owning reindeer, the Alaskan eskimo youth is becoming an independent responsible citizen. Other industrial work is seen in school gardens. Superintendents and teachers testify to a remarkable interest shown by natives of Alaska in the nation's problems of the war and after.

Concerning progress in South America. Universities are to be established in several states of South America as soon as the public school system is taken care of. It will take ten years, but

it will go ahead because the people are interested and the Governments are appropriating money for building and maintaining about 1,000 schools throughout Argentine, Chili, Ecuador and Peru. South Australia has declared that she is going so far in her re-organization as to eliminate the old idea of promotion of teachers by seniority or anything but merit before she will sacrifice efficiency for the youth of South Australia. She is enlarging the scope of technical education, making supervision keener and is pressing home at all points the vital need of education. The Director of Education for North and South Wales strikes a sound note when he says—"If we are to have an intelligent democracy, a democracy with right standards of life and right conceptions of its civic duties and social obligations, a democracy in which the individual will think for himself and not become the victim of mass thinking, we must surely do something for the large number of young people to enable them to make a thoughtful response at the ballot box."

I like that for there is nothing that speaks for a country or a province of that country like the ballot box. There is nothing that provides better means of preparing for the ballot box than does the policy of education adopted by the Government and carried out by the people.

What has Ontario's educational policy done to prepare boys and girls to become resourceful men and women so that they can create and direct the industries that are waiting to help give Canada a national character. What has become of agriculture in Ontario, and why are there congested urban centres like Toronto, Hamilton and London with an underfed, poorly housed mass of people clamoring for an existence? In the rural districts there are acres of untilled, unsettled land and the whole country clamoring for a greater production. Then again why do we send to the United States and elsewhere for experts in manual arts and in physical education, etc? The answer is plain. We are not developing home talent. Our home talent goes abroad because we fail to provide the opportunities in Canada. Then what happens. Our Canadians are made of good stuff and they are snatched up like hot cakes, offered good positions to stay where they are and we lose them.

Ontario must wake up if she is to redeem herself. Probably that is what she thought when she placed the present Government in power. But even the present Government must depend on the spirit of the people to interpret and carry out its policy of Government. As to our plans for the future policy of education there is no part of the educational system that needs more care than that from the kindergarten to the secondary schools.

We cannot produce experts in our elementary schools, but we can lay a broad foundation of general education leading to specialization for the masses. This is being done by adapting the manual training work to all the grades from Form I to the University. Form V or the Junior High School Course with its obligatory and optional subjects is suited both to the urban and rural schools where they are large enough. It is calculated to keep children at school and interest them in the regular and special subjects leading to professional, agricultural, commercial, industrial and domestic occupations. Thus pupils may remain in Form V of the public school (equivalent to Forms I and II of the high school) without passing any formal entrance examination. Pupils may now enter the Technical High School from Form III and IV without an entrance certificate and it has taken many a child into a new world and decided for him what he wants to become or does not want to become. Let us get as many substitutes as we can for the entrance examination and let us develop a plan of keeping in close touch with boys and girls whenever they leave school and wherever they may go. There may be always doubters and objectors to reform making, there will be waves of public opinion dominating the centuries which lower the standards of living, and which are satisfied with things as they are. There are those in every profession who lower the standards of that profession because they are poor in spirit, poor in vision, poor in principles of thinking and living. But, perhaps, there is no profession with fewer sore spots than the teaching profession, and no profession where they can be so effectually eliminated if the large body of teachers will co-operate to make the profession absolutely capable of the leadership of the community. Teachers' councils are quite justified in securing rights and privileges for themselves and they will not forget. I am sure, that their standard of service to national character cannot be kept too high.

The future is full of promise, because everybody is becoming interested in education. It is a good sign that parents are becoming more intelligent in the school life of their communities and that Home and School Associations are growing steadily throughout Ontario and throughout the whole country. They and the teachers are fast helping to form public opinion concerning education. The school house is becoming the social and intellectual gathering place for the community and it is there that public opinion will be made ready for the ballot box.

Prof. Sharp, of Boston University, says you cannot become democratic without study and thus you can do many things without education. You cannot make a country truly democratic without education.

This is Canada's problem and it is Ontario's problem. We look to the teaching profession and to the Government of the people for the people, by the people, for the most part to settle. This type of democracy we are to have by preparing and inspiring our boys and girls to become the men and women that Canada needs for the development of her humanitarian and her natural resources.

MENTAL HYGIENE IN THE PUBLIC SCHOOLS.

DR. ERIC KENT CLARKE, TORONTO.

Mr. President, Ladies and Gentlemen:—

It gives me great pleasure to appear before you this afternoon to speak on the subject of "The Problem of the Mentally Defective Child in the Toronto Public Schools." Just what a formidable problem this is, very few of you probably recognize. I might state that in a survey of some twenty-eight schools, 317 mentally defective children have been found. These schools represent a school population of 22,000 children; the defect is thus 1.6 per cent. of the total school population surveyed.

Perhaps it would be well to explain first what a mentally defective child is. In the schools it has been frequently asked, "Are these mentally defective children insane?" No, they are not the same at all. An insane person develops as an apparently normal individual up to a certain age, say twenty, and then undergoes a deterioration. That is, he is apparently normal until he is stricken with a well defined illness, like pneumonia or typhoid, and the disease makes him an invalid. He may recover or the injury may be permanent.

With the mentally defective child the story is entirely different. There are, first of all, three types of defectives. (1) Idiots, who are the lowest type and who are unable to protect themselves from the common dangers, and whose vocabularies are limited to such words as "mama" and "dadda." (2) Imbeciles who are able to walk, talk and protect themselves against the common dangers, have modest vocabularies, and the mentality of children up to six years of age. These children are frequently found in school causing a great deal of trouble owing to their very feeble powers of assimilating school knowledge. (3) Lastly come the moron or mental defective group, as they are so called loosely—these are the highest grade and have a mentality ranging from six to twelve years of age, in a normal individual. These constitute the largest numbers, and are most difficult to manage, as the nature of their real trouble is frequently overlooked and they are labelled, stupid nuisances or just bad actors. They are all of that, but like Postum—There's a reason.

A natural question here is, how do you find out their mental age? This is done by a series of ingenious questions that have been compiled by the testing of many thousand children. One assumes that a normal child at a certain age is capable of doing certain things, reasoning out certain problems. The tests are designed so that the child has a chance to use his hands, to write, to draw, to copy figures, or build blocks, in some to count, and also do some mental reasoning. The tests are arranged in series of six for each year, starting at three years up to sixteen, and in scoring credit is given for each question the child gets the answer to. The answer itself is not nearly as important as the method the child uses at getting at the answer.

To show you the questions are not hard. Many times in the survey, children who were regarded as average, or in some cases bright pupils, were sent in for a test without our knowing beforehand, and in each case the pupils answered up to their normal mental age, and many of them a year to three years above it.

Once the mental age of the child is found by these tests it is calculated out in a percentage, the result being known as the Intelligence Quotient.

The legal definition requires that the mental age be at least three years behind the physical age, before a child is legally defective. In practice any one below seventy-five per cent. is counted to be defective, which amounts to practically the same thing except in very young children.

It would interest you to follow the history of a mentally defective child from infancy. The progress is one of retarded growth from the beginning.

The child is slow at learning to walk and talk, slow in cutting teeth, at an early school age is found to be very childish for his years. Along with these mental retardations are certain physical abnormalities pointing to a retarded physical growth. They are undersized in many cases—measurements of the skull less than normal. In 220 of our cases the palate (roof of the mouth) was found to be narrow, highly arched, instead of the flat broad normal palate. In 220 cases it was found there was one other physical defect, and in 155, two or more physical defects.

To take such a child at six—a mental examination would reveal a mental age of $4\frac{6}{12}$ years. The same child at eight years, the mentality would probably have increased to $5\frac{1}{2}$ years; at ten years to 7 years mentally; at twelve years to $7\frac{1}{2}$ years; and sixteen to 9-10 years mentally. Here the process stops—the mental age is more or less stationary.

Now we come to the problem, what are we to do with these children? It can be seen that they cannot assimilate knowledge as quickly or easily as normal children. It would be difficult to teach a child $5\frac{1}{2}$ years of age to read and write, and do fairly complicated figures, yet unless one realizes that an eight-year-old defective is only equal to this mental age we have a problem that cannot be surmounted. The farther the intellect lags behind the physical age, the less one can expect.

Consequently in the survey most of the defective children have been found in the senior first and junior second books, many staying there year after year. Occasionally one finds them in the third book or even fourth, not because of their mental powers, but on account of the physical size. They are incapable of assimilating the knowledge, consequently they lose interest, become restless and troublesome. It is hard enough to keep a child quiet for any length of time, and consequently as the result of having little or no interest in the class-room work, he becomes troublesome, a worry to the teacher, and from this it is only a short step to truancy. A child who stays in the same book term after term and sees smaller children come in from the junior grades, pass him on the work he has covered time and again gets discouraged, and falls farther and farther behind.

By keeping him in this sort of class we are not being fair and doing our best to bring out his good points. We are unintentionally, yet knowingly, systematically destroying whatever chance he has to make good. For if he has feeble power to develop mentally he has great potential power to develop industrially. Why not give him a chance!

By going on this way we are simply taking money from our own pockets. Here is one cycle, mental defect, truancy, loitering on streets, petty theft, repeated thefts, chronic criminal reformatory, public charge. That is by no means an uncommon chain of events.

Slowly, but surely, the industrial class is coming to stay. Here the children are utterly happy in congenial surroundings, doing things they can understand and like. Arithmetic here loses its drudgery, writing becomes a pleasure. The class is small, only fifteen pupils to one teacher, and everyone has a chance to do his best. Praise is forthcoming when there is success. Failures are accompanied by a cheery "You'll do better next time," or there is in many places a gold star to be worked for that means perfection. Only very simple arithmetic and writing are attempted, most of the time being taken up by such manual work as weaving, basket making, drawing, simple carpentry, etc. In some places truancy has practically disappeared from the schools.

In one school where such an industrial class was instituted a pupil made good progress, and it was decided to try her in an ordinary class again. When told she could go back she cried, and the next day her mother wrote to the teacher asking her to please keep her daughter, and later she came and pleaded that they keep her child there. This was done.

If diplomacy and tact are used when the class is organized there is no trouble, and no stigma is placed on the child. It is a privilege to be allowed in such a class. Such names as "The nut class" and "Dunce class" must be assiduously avoided. The call for specially trained teachers along these lines is growing all the time.

Along with this survey it is hoped a nutritional clinic can also be conducted at the same time, as it has been found many of the children are underweight, thin and anemic. Many agree that this is the cause of the mental defect. However, the opinion that is most generally held is, that this is the result of the defect rather than the cause, the real cause being heredity.

THE RELATION OF PLAY TO THE EDUCATION OF THE CHILD.

REV. D. BRUCE MACDONALD, ST. ANDREW'S COLLEGE, TORONTO.

The subject upon which I have been asked to address you this afternoon is "*The Relation of Play to the Education of the Child.*" I have no doubt that I am addressing fellow laborers in the field of education who have long since realized that to educate is to do much more than merely impart to the pupil a knowledge of facts and of methods of acquiring knowledge. Important as this duty may be it is after all but a part of the teacher's obligation. We do well to remind ourselves frequently that to educate is to lead out. It is the responsibility of those entrusted with the instruction of the young to lead them out from the ignorance of inexperience to the knowledge which comes from a physical, moral and mental development, accompanied by quickened powers of observation and thought. Boys and girls at school are undoubtedly engaged in the business of living, but they are living the life of the child, not of the adult. The wise teacher realizes that soon school days—the period of primary and secondary preparation—will be over, and the time arrive when the individual will be placed under the necessity of living seriously, of facing problems not always easy of solution. The guiding principle is to be found in recognition of the truth that the child must be taught something of the art of living. Character development, as the pupil proceeds from grade to grade, thus becomes a most important object of accomplishment in the teacher's work. With this goal continually in view, class work does not suffer, for, as character is strengthened quality of work on the part of the pupil improves. After all it is the personal equation which tells in our complex modern life, and the object of education should be to assist the individual to become his developed self, to enable him to add to his personal equation those factors which will increase the force and value of his personality—his character. To educate is to so direct the development of the latent qualities and possibilities of the individual pupil that they may become actualities, and by their use take on the strength which is evidenced in power of performance

and of self-control. We, then, who are engaged in this noblest of all callings, cannot remind ourselves too frequently that it is our privilege to lead our pupils on the road of self-development, and to so lead them that they may learn to walk alone with unfaltering step long after the teacher may have gone the way of all flesh.

The play, or recreational, instinct is present in the human race, and, while in many individual cases the treadmill of life has dulled this instinct, until men and women are produced who have ceased to be conscious of its presence and who have forgotten how to set about the recreation of the power of performance and of the capacity for enjoyment, yet the fact remains that such a condition is not normal. Its perpetuation in individual cases means limitation in the performance of life's duties and in the enjoyment of life's legitimate pleasures. This is to be regretted and is not as it should be. But when the individuals become so many that whole classes in the professional, in the business or in the labor world become affected, a situation is set up which militates against the well-being of the state. A growing consciousness of this truth on the part of the world's toilers is responsible for some of the prevailing unrest in the social fabric of our times.

Inasmuch as he belongs to the young of the human race the play instinct is the possession of every normal child. Consequently its presence must be recognized, if we are to have regard to a sane development of the child's possibilities. It must be so regarded that it is given scope, not merely for its own sake, as affording temporary pleasure, but in relation to the important contributions which its right use can make to the general development of the individual—that development which is the ultimate aim of the wise educator.

In considering the effect of play on the well-being of the child the thoughts of the average man turn at once to the benefits resulting in physical development as a consequence of well directed athletic activity. This is natural, for there is such a direct benefit, though we must not forget that physical development cannot be considered as existing by itself. It is essentially related to mind and spirit, and it is to be regarded as but a part of the completely developed individual. However, the body is a most important part of the human equipment, for after all it is the only machine

through which intellectual development may become effective, or soul culture prove of value. A healthy body means so much to the human being in relation both to his own enjoyment of life and to his ability to perform acceptably his work in the world, that the care and development of this working machine is a matter to be approached in all seriousness. Just as the most expensive of automobiles becomes of little practical value for the purpose of locomotion, which was its chief object of construction, if the engine under the hood refuses to do its work, or the luxurious continental train fails to carry its passengers to their destination, if the huge locomotive be disabled, so the individual with weakened body finds himself seriously handicapped in all the processes of human achievement, no matter what his equipment otherwise. The disabled engine of man's invention may be replaced, but the human machine must be accepted for weal or woe during a whole life time.

There is much truth in the statement that it is easier to be a good Christian when possessed of a good liver. Intellectual processes are keener and more effective when the waste products of the body are being properly eliminated. This acceptable condition of well-being is largely obtained through proper exercise, play, athletic activity, not only in adult life, but also in childhood. It becomes essential then in preparing the child for life, that the care of his machine be considered of first importance. The re-action is seen in a happier outlook on life and in improved school-work. As a child he is better physically for regulated play. Muscles are developed. Physical power, ability to withstand strain, correct posture, providing possibility for the normal development of internal organs, become his possessions. Habits of exercise are inculcated which continue to furnish results long after school days are over.

Man is created in the image of God. The body is the temple of the soul, and is consequently worthy of all reverence. That there is pressing need for a recognition of the truth that the body demands care and development for its own sake, even in our own land was amply proved by the conditions disclosed through the operation of the physical examination necessary on entering the army. Not only were many rejected, but much time

was consumed in making those accepted physically fit. The basis of preparedness in life is physical preparedness.

From the possession of a healthy and exercised body the child reaps a direct benefit in improved class work, for a properly conducted play hour reacts on the quality of intellectual work. It provides a spiritual and mental tonic. Entertainment is supplied, and an opportunity provided by change of occupation for recovery from mental fatigue. This benefit is shared by the school. Work ceases to drag, because new life has been introduced. The evil effects of class room life have been counteracted. Nature has been given a chance to re-adjust her balance. That the opportunity should be given hardly requires argument. Is there a teacher, for example, who has not experienced the necessity of excusing from the class room a pupil suffering from nose bleed? Now, "nasal hemorrhage is caused by congestion of the blood about the head, resulting from forward inclination of the body in reading, and from the intellectual and emotional tension of school life." Both the child and the school profit by the introduction of reasonable periods of relief from this tension.

Graziani has fairly well established the truth of his statement that "intellectual work probably produces a toxin which brings about an immediate change in the chemical and functional qualities of the blood." He states that "the underlying cause of school anaemia, with its alterations of metabolism and its imperfect oxygenation of the blood is to be sought in the excessive accumulation of toxic products of fatigue." Inattention is frequently the result of the presence of this toxin, and fortunately for the child is often nature's defence of his well being. A well spent summer vacation improves the condition of the blood of many of our boys and girls. My own experience is that directed athletic activities go very far to make it unnecessary to burden the summer vacation with the duty of making up so much lee-way in this particular.

Again, the playing of games quickens the sense of perception. The approach of the ball, the touch of his opponent, the call of his name arouse the player to quick and direct recognition of things about him. Group games stimulate and develop facility to co-operate. The timid child learns to take his turn. The over-

bold is induced to wait for his. Players learn to accept defeat without discouragement, to win without undue elation. Self is subordinated to the interests of the team, for co-operation is the very life of team games. One must learn to give and take. The rights of others must be recognized. While the game is to be played for its own sake, not merely to win.

Then, too, the play hour properly directed provides an outlet for the child's surplus energies and thereby makes a welcome contribution to the problem of discipline.

It is much to be regretted that our schools are not provided with more ample playground facilities contiguous to the school itself. I am a strong believer in associating the play hour with the school rather than leaving it to playgrounds and recreation centres. Where the playfield is the school's there is greater opportunity for supervised activities and for the teacher to share in, or at least display a real interest in, the play side of school life. The result of such interest is a more effective influence in the class room and less friction in discipline. The child discovers that his teacher's interest in him embraces his play as well as his work. The result is that a stronger bond of sympathy is set up, since the teacher is found after all to be human. With such interest and oversight there is some hope of the child learning that work and play are not after all two opposing interests in his life, but are to be regarded rather as offering a partnership of opportunity for the benefit of his own development.

Also, when the play activities of the child are connected with his school life a great impetus is given to the production and maintenance of a desirable school patriotism, which in itself is a necessary contribution to the school atmosphere—that subtle something which is so intangible yet real, and which plays so important a part in the development of the children in any school.

If the school controls its playfield and it is situated not too far from the school building, greater latitude is afforded in selection of the hours for play. In our own country it is the custom to release the pupils in primary and secondary institutions for the major play period at 3.00, 3.30 or 4.00 in the afternoon. There is the time remaining until 6.00 for play. Two hours and a half is none too long for this period, when from it must be deducted

the time necessary to prepare for the game and for the evening meal which follows. Until last autumn it had not occurred to the speaker to question the reasonableness of having the main play period in the later hours of the afternoon. However, at that time in order to obtain play ground facilities for the school it became necessary to divide the class-room schedule into two sessions. The morning session opened at 9.00 and closed at 11.00. All boys were then turned out to football or other directed exercise, and the afternoon session was conducted from two to four. After four there was Cadet Corps, and such exercise as boxing, fencing and wrestling. The result of this enforced change in the time-table was a marked improvement in the general buoyancy of the school and in the quality of the work done in class. Boys and masters equally profitted and have asked for a similar time-table in the approaching summer term. There is no doubt that our Canadian autumn lends itself well to a major play hour at 11.00 o'clock in the morning. If all winters were similar to that which is but now over, the same statement could be made of the winter session. There can be no doubt of the summer term, and we will operate the school after Easter on the two equal sessions plan, with the major play hour intervening.

The necessity for short recess periods, which provide minor opportunities for relaxation has been so frequently discussed and appreciated by teachers that it is not necessary to dwell here upon that side of the child's play.

Games are, generally speaking, of two kinds—the group or team games and individual contests. Each has its place. There is no doubt in my mind that in primary schools the right of way must be given to group games in the gymnasium and team games on the field. When we remember that at this stage we are dealing with undeveloped possibilities and that the object of our games is threefold:—i.e., to afford entertainment, to make provision for bodily development and to assist in character development, we can understand the reasonableness of the view that group games are of chief importance. In group games the entertainment is provided for the many, not the few, and for the child it is entertainment in a more attractive form. The time of the instructor is available for a larger number of participants rather than for the few

while the many look on. Games in the gymnasium and on the field can be so regulated that all muscles are brought into play and internal organs strengthened, while at the same time the mind of the child is interested and he is forced to be observant if he is to satisfy the three parties concerned, his instructor, his fellows and himself.

Working, I use the term advisedly, alone at the bar or at other individual exercise the individual may strengthen in his character the quality of doggedness or perseverance, but there is no call in isolated exercise for the development of the social qualities of character—such as give and take, playing for the good of the whole rather than self—which an all round development demands.

When the secondary stage is reached more time can be given to individual work, but even here great care must be exercised. No boy physically fit should be allowed to leave school without having learned to contend with others. Life is a fight and the fighting spirit should be developed on sane lines of self-control, where there is contention, but no quarrelsome spirit. Sufficient reference has already been made to the benefits of team play to justify this statement, and it is not necessary to enlarge here. A recognition of this truth on the part of physical directors has led to a falling off in the number of gymnasts developed at the present time in our gymnasiums. The influence of group games on character development has been recognized and such games have demanded a major portion of time and attention.

The need of individual contest is well met in school life, where attention is paid to boxing, fencing and wrestling. It is to be regretted that boxing cannot be taught in every school in the land. It develops pluck, endurance, ability to take and give hard blows and smile at the same time, and withal there follows with it a knowledge of self-preservation. Experience shows that the best boxers are usually the least quarrelsome.

The child should enter into the major plays, or athletic activities, only after a physical examination, and exercise should be directed for the individual with the object of meeting his peculiar needs in physical development and correction, after those needs have been detected. Weak hearts can be strengthened, narrow chests developed, spinal curvatures remedied if caught soon enough.

and proper exercise is taken under direction. It is through ignorance that most of such conditions become chronic, and because of entering into the wrong branch of sport that they become the heritage of the individual. Herein I speak of what I know. For fifteen years such a physical examination has been conducted, and a direct oversight has been exercised at the school with which I am concerned, by a specialist holding the position of master in charge of athletic activities. The results speak for themselves.

It has been said that Boarding Schools develop athletics at the expense of class work, and, while I take issue with the statement, I may say that I am not surprised that it is made by those who do not consider all the facts. The truth is that at the Boarding School, where the boy is under the direction of the school for twenty-four hours in the day, athletics have found a desirable place in a regulated time-table, with the result that by comparison with the average day school they appear to be more important. What has happened is that the Boarding School boy has reaped the benefit of an organized major play-hour, and is much the better for it. His life is full, but regulated, with from five to five and one-half hours of school work in the day time and two in addition at night under supervision.

My own experience has been with boys. I realize that I address those whose duty it is to solve the problems of the girl as well. What I have said of group games can be made applicable for girls in school. If I say no more it is because I realize that I have had too little experience to justify me in speaking. This much I would say, however, that I am not at all sure that the more robust games for girls are of benefit either to the individual woman or the future race.

Our subject is concerned with school life. Nevertheless may I be permitted in conclusion to express the hope that some of my listeners may realize that play and exercise is the need, not only of boys and girls, but also of men and women. A recognition of this truth for ourselves will increase our happiness and efficiency. We should do our part also, in creating a public opinion that will lead to the provision in all communities of larger facilities for athletic recreation for our boys and girls after they have left school days behind them and have become the men and women of their generation.

THE SCHOOL-ATTENDANCE LAW.

MAJOR J. P. COWLES, B.A., PROVINCIAL SCHOOL ATTENDANCE OFFICER.

On Wednesday afternoon before the Public School Section, Major J. P. Cowles, Provincial Attendance Officer, spoke on the subject of School Attendance and Recent Legislation.

The speaker called attention to the relationship, between the regularity in attendance of school children and their promotion from year to year, and claimed that as three out of every four failures were due to irregularity the blame for failure should rest on the parent rather than on the teacher.

Referring to the added cost of maintaining our schools due to pupils who fail having to repeat the year he said that seven dollars out of every hundred taken from the ratepayers for elementary school purposes might be saved if School Boards would rigorously enforce the School Attendance Act. The normal boy or girl who attended school regularly should complete the public school course at fourteen.

In speaking of the movement for the Canadianization of the foreigner Mr. Cowles contended that this could best be done through our elementary schools where the children of foreign born would mingle with native born and imbue Canadian ideas and ideals and take back into their homes the influence of their teachers and associates.

In connection with its campaign for the education of the illiterates the United States Government recently issued statistics to show the tremendous loss in production due to their illiterates who number approximately as many as the total population of Canada. By similar computation we lose in Canada from our illiteracy \$75,000,000 in diminished productivity. It is therefore, he said, the duty of the state on purely economic grounds not only to provide elementary schools, but also to see that children attend.

The School Attendance Act now in force provides penalties for parents who are neglectful in sending their children to school and also for anyone who employs a child under fourteen years of age during school hours. The speaker referred to the Adolescent

School Attendance Act which will increase the age limit of compulsory school attendance from fourteen to sixteen and showed that this was in line with recent legislation in practically all civilized countries. This Act will not become operative until a proclamation is issued by the Government.

“But no acts of parliament dealing with education can be effectively enforced without the loyal support and co-operation of every teacher,” he said. The teacher should bear in mind his responsibility. According to recent information, of eleven boys under fourteen years of age who in two months were convicted of more or less serious offences along the Niagara frontier every one was a delinquent irregular pupil.

WORK AND PLAY.

PROFESSOR J. M. ARTMAN, UNIVERSITY OF CHICAGO, ASSOCIATE PROFESSOR OF RELIGIOUS EDUCATION AND DIRECTOR OF VOCATIONAL TRAINING.

In the address "Education through Play" I set forth the position of Organic Social Psychology as regards play. According to this position, play is not a special set of acts different from other acts which we may call work. Play is rather an attitude, a disposition, which may characterize all human action, no matter what the field or division of human endeavor. Whenever present action is carried on for its own sake or as a part of a complex act the final consummation of which is far in the future, then that action is play.

The common conception of play as something different from and opposed to work is false. The mere noting of this fact, however, is not enough. With all our development of play grounds, gymnasiums, and play programmes, the fact remains that life on the whole is embedded in the notion of the contradiction of work and play.

In our homes, for the most part, the parent says to the child "Go on about your play—but don't bother me. I must work." I have heard parents use this or kindred expressions many, many times. It is a closed argument as far as they are concerned. Work is serious, valuable, to be engaged in by real folks. Play is idle, waste of time, and not to be thought of by serious people. As though play lacked seriousness, lacked value, and is unreal!

In school how often has the teacher indulged in this or kindred expressions. "Come, we have had a good time during recess, now let's work a while." In other words, play can't be helped, folks will break out in it; they need a breath of it now and again, but the real thing is work. Even though many teachers no longer make such a sharp separation yet the spirit of the study period and the recess period in most schools stand in sharp contrast to each other. In the school session the child forces himself to a task, is held up to pre-

cision in assigned tasks by a taskmaster, while in the recess period there is utter abandon of energy with action for action's sake.

In church we all know the conception of play as an evil has gripped us for generations. It was Cromwell who declared that anything that makes for a laugh is of the Devil. The Puritans of all lands tabooed play and glorified work. They looked upon the natural spontaneous appetites and passions of the body as bad, and to be curbed, subdued, by the religious way of life which comes from above. Spontaneity of living, living because of sheer joy of doing was looked upon with suspicion. No, said the church, life is serious, life is duty, life is surrender of spontaneity to a direction from without. Of course, the church is now changing and beginning to support play, and yet the inner processes of church life have not changed sufficiently from the duty basis to the joy of living basis.

Of course, our business (industrial and commercial) world makes a wide break between work and play. In fact, our industrial system has so absorbed the time and energy of folks that the spontaneity of life is sapped from even the small leisure time left to its workers. To many industrial leaders the way to keep folks good is to keep them at work sufficiently long that there is no energy left for free thinking. Here again the thought of the business world is changing. But have we much evidence of a recognition of all life as play? Have we the developing of the sharing spirit, the initiative and inventiveness, so that work becomes play?

Our play specialists, those profound students of human growth, declare *play is life* to a child. It is the one serious business of living. Moreover, Johnston, Lee, Curtis and others tell us all life is play when lived to the full. They claim, and rightly, that play is far more serious than work; that play furnishes the finest examples of complete enlistment discoverable—that in play the whole self is engaged from the sheer joy of activity, or the grip of a larger activity in process of consummation; that because of complete enlistment play represents the acme of intellectual alertness; that the spirit of whole-souled participation affords the greatest of all co-operating situations and therefore of moral growth. In fact, play is an attitude discoverable in any and all phases of human action and the essential for full flowering of human living.

The students of growth insist that all life must, to be wholesome, become play. We must play in school. We must play in the home-making process; in the manufacturing and commercial processes, we must spiritualize life by making it all a sharing, participating, developing joy of action.

If we doubt the value of making all forms of life play we need only to note that all good workmen, no matter what their line, play at their work. The stove maker idealizes his task, puts his whole self in it (for example, the story of the Nuremburg stove); the artisan works because of the joy of creating and building his ideal house; the farmer shares with his creator in creating; the teacher who really teaches finds her supreme joy in her teaching; whatever the phase of life activity, it is done well only when it affords outlet for spontaneous, happy activity. If our captains of industry wish to develop happy workmen, let them first gain the sporting spirit, the ability to make the sacrifice hit, the sharing with God in the processes of the industries they are conducting; and let them make a study of how to keep the spontaneity of play in the tasks the workmen are doing. When we share in great endeavor we play.

There will always be need of recreation—of coming back after arduous toil. This, however, should become less and less when life becomes play inspired.

Teachers especially should play in their work. It is their task to cause all life to bloom as great endeavor. They enlist players in each essential occupation of human life, each to do his part in advancing the ball of human good, each playing the game. Thus will life be fruitful and filled with joy.

ROTE SINGING.

MISS MAE SKILLING, TORONTO.

We are standing these days at a critical period in the development of our educational system in Canada. We have lived and thought so differently in the last five years that, now the war is over, we cannot settle down and do as we did before. We are all looking with strained, eager eyes to what lies ahead of us. We are asking "What is the future to yield?" With the Church, with the world politician, with the great industrial associations? We, as educators, are planning a share in the reconstruction of the world. It is a testing time, and at the same moment an opportunity.

With a heart full of high hope and enthusiasm, I long to have a part in some phase of this great new structure. My music experience in my teaching years has been so vitalizing and stimulating, and has created for me, in my classes, such *esprit de corps*, that I have chosen to speak of its benefits this afternoon and its place on our new school curriculum.

If music is to be accorded an honoured place in the school curriculum, it is obvious that it must provide a true educational stimulus, a stimulus not provided by other subjects. The best educational thought of to-day is that children should have all their latent faculties developed on a broad principle, that in the early stages, the imagination, the pictorial and the rhythmic sides of their nature are capable of such development at a time when the purely intellectual side cannot be called upon to any great extent. This is the time when the healthy, normal child should have the joy of music, that beautiful God-given thing of which we, if we are worthy of the name, should be missionaries.

There is a great deal written about the beauties of music, etc., etc. One would suppose it to be a much more popular study than it really is. It has been my privilege to visit schools, both urban and rural, in many parts of Ontario in the last six months, and I have been amazed at the lack of music training of *any* kind in many of the schools, although it is one of the prescribed subjects.

In some instances there may be valid reasons, i.e., lack of training on part of teacher, for the neglect of the sight singing

lesson and the following out of the regular prescribed course; but what excuse can there be for the neglect of rote singing?

By rote singing I mean the singing of songs "just picked up" by hearing some one else sing them.

Permit me to enumerate some of the benefits of rote singing:—

1. It is healthful; develops lungs, voice, carriage, and poise. has a stimulating or subduing effect according to nature of song. etc. The medicinal and curative powers of music are well known and are being more frequently practised than ever before, by leading medical men, especially those interested in the study of neural and mental affections.

Professor Bott, one of the leading professors in psychology, whose laboratory is not many minutes' walk from this room, has been experimenting for months along this line.

2. It creates unity of thought and action, and develops a healthy, hearty class spirit.

There is great mental discipline in community or team work of any kind. The timid child loses his self-consciousness, and the dominating one learns co-operation.

Let me quote from an article in *The Outlook*. "The direct power of music is to put life into the heart and vision into the soul of man. A clear illustration of this fact is shown by the phrase *Esprit de corps*. What is the best means available for generating this fire of spirit? Singing. For between the qualifications of a good soldier, i.e., the demand for precision, co-operative action, alertness, initiative, and the inherent characterization of music, i.e., rhythm, life, unified action, fire and imagination, there is an everlasting relationship."

This same discipline is also one of the greatest benefits derived from games. While the pupil has every opportunity for exercising his individuality, he is, at the same time, restrained or encouraged by the team spirit, he must act for the ultimate good of his class, his team, or his school.

3. It provides a means of emotional expression.

Music begins in the life of the child with the lullaby crooned by the mother. Some investigators hold that children attempt to sing, even before they try to talk. Many of us have observed chil-

dren of whom this assertion is true. As children grow older they express themselves in songs, singing games, and dances; for music and play trip hand in hand through child life.

The part of our *own* mental life that most influences our relations with our fellow-men is our emotional conception of things. If our emotions are of the calibre that will help us to so control our actions that we may find in others, or stimulate in others, the things best for worthy world-citizenship, then are we truly worthy world-citizens ourselves. There is no doubt that singing is the most universal emotional expression. Our old folk songs are examples of this.

Sir Hubert Parry says: "Folk tunes are the first efforts of man in distributing tones so as to express his feelings in terms of design. Even primitive man has an uncouseious instinct for rhythm and for portraying emotional impulse. The finest tunes are those which combine the emotional aspect with the finest adjustment of design." Someone has said: "Let me make the ballads of a nation and I care not who makes the laws."

The labouring man, as well as the professional man, the pupil in the school as well as the stenographer, need a safety valve. Music, the listening to it, the taking part in it, therefore may be a powerful influence in diverting people from questionable forms of amusement and dissatisfaction and in bringing more happiness into life. The best way to prevent pupils (and adults) from doing the wrong thing is to give them something to do that is equally as stimulating and interesting.

The "Marseillaise" expressed the pent-up feelings of France at the time of the revolution, and has been worth millions of men to that country in time of war.

Have you ever, in your class work, experienced this emotional outburst on the part of the pupils? An incident comes to my mind at this time which happened in my own class during war time. We had just organized the class into four teams and were launching a magnificent campaign to raise money for the Red Cross. After the teams were chosen and enthusiasm ran high, I spoke on the duty of the boys and girls in standing behind our brothers and fathers and thus helping to maintain our country's honour, etc. One dear little girl of twelve, with eyes shining and whole face aglow with the spirit which must have fired Jeanne

d'Arc, rose in her seat and exclaimed: "O, Miss Skilling, may we sing "We'll Never Let the Old Flag Fall." In a trice the class swung into the refrain and never have I been so thrilled. It was *real singing*, i.e., emotional expression of the highest order. It is not boasting to say that in three days they, by their own efforts, raised nearly two hundred dollars.

4. *Singing provides a means of recreation.*

This is possibly one of the most popular uses made of the singing lesson in many schools, and yet some teachers to whom I have talked throughout the province have said to me, "Oh, I believe in music all right; I think that music is a wonderful thing. I love it myself, and so do my children; but you know we have so many subjects to teach that I find there is no time left for singing." I should like to ask those teachers if it would be considered wisdom on the part of an engineer in charge of the machinery of a large factory or plant not to take time to stop and oil that machinery, that he had no time to relax the strain on the cables and belts and cease action until every part had been overlooked and cleaned.

Singing in the school often proves to be the oil which prevents friction and keeps the machinery running smoothly. "Singing is a shower-bath to the soul; it cleanses, purifies and sweetens it."

I have stopped in the middle of a lesson, when the day was dull and the class was restless, and have suggested a song. We would throw open the windows, stand up or change our position, and sing something familiar. It would take probably from two to five minutes, but the class would go back to its work like a new class—refreshed, revived. Was that a waste of time? I know that many a period has been saved, time has been gained and a bright spot has been painted on the memory of that afternoon.

Following is an interesting clipping regarding Lloyd George, handed me by our worthy secretary, Mr. C. G. Fraser:—

"Hitherto Lloyd George's chief relaxation from the cares of State have been golf. It has been his rigorous habit, no matter how pressing his onerous duties, to leave his office and seek a few hours' rest on the Surrey Downs every week-end.

"Now it develops, according to Mrs. Nora Langhorne Phipps, sister of Lady Astor, he has taken up singing as a more refreshing mental stimulant. When a guest at Cliveden, Lady Astor's

magnificent country home, he frequently settles down before the great blazing hearth in the hall, and with firelight playing across his face, sings for hours on end delightful, half-forgotten melodies from the scores of ancient Welsh bards.

“ ‘The Prime Minister loves nothing better than to settle down before the fire and join us in singing old-time melodies,’ said Mrs. Phipps. ‘He has a fine silvery tenor voice, and next the ballads of ancient Wales, he likes the darky songs of the South and rag-time. I think he has spent most of his enjoyable hours away from Downing Street with us.’

“The Prime Minister has commented on the absolute mental relaxation obtained by singing, according to Mrs. Phipps.

“ ‘Golf and billiards necessitate mental effort,’ she said. ‘Singing requires a minimum. That’s why it does him more good, in my opinion, than the more active forms of amusement.’”

5. It develops good musical taste and appreciation and increases song vocabulary.

Children love any kind of music, and in our singing lesson we have an opportunity to present the best. The best songs are those that have lived through many generations, because they have in them the elements which appeal to the deepest and best emotions in us. There are scores of such songs.

If, say 30 or 40, time-honoured songs could be taught throughout the grades and reviewed from time to time, pupils would be ready to take part in social or community singing. When the hearts of men are poured forth in song, community music is beyond doubt one of the greatest inspirations. Many men and women, who are now barred from singing at social gatherings regret that in their youth they did not learn the old songs which are the common heritage of the race, and which are the treasure of the common people.

The only way to counteract any evil is to replace it with something just as attractive. By giving our boys and girls a repertoire of good songs, they will not cling so tenaciously to the trash that we hear these days from people who are intellectually capable of enjoying better music if they had had an opportunity of learning it at an age when their minds were receptive.

6. It develops imagination and gives colour, rhythm and harmony to the lives of our children. Children live in a world of unreality. Their greatest game is “Let’s Pretend.” We starve

their hungry souls. We starve their imaginations, their sense of rhythm, their natural instinct to "dress up" and live in a different atmosphere instead of directing that most potent of all their latent powers.

Where do we have a better opportunity than through singing. They love the singing games. The majority of children know three or four when they might know twenty.

David Mannes says: "It is not the definite thing which counts in the world, but the intangible thing, and it is only the intangible thing that can touch the spirit." We teach children to practise a technique rather than to feel tremendously the great beauty of life through art. We owe it to future generations to educate the children of to-day so that their *spirits are alert*.

7. It serves as a foundation on which to build the technical study of music.

And just here I should like it understood that while I am enlarging on the benefits of rote singing, I do not for a moment think that the subject of Music Study should be confined to rote singing. Experience has taught me that the teaching of sight singing ear-training and part-singing contains possibly the greatest educational value of any subject on the school curriculum. Apart from the fact that it is so enjoyable, ear-training and sight-singing develop quick perception, rapidity of observation, absolute accuracy in operation, and concentration of thought, together with actual performance with voice and hand in studying an instrument showing that here music excels in educational value.

With the knowledge of melody and rhythm required to sing any song, it is less difficult for a teacher to introduce notation. If we follow the pedagogical principle of "leading from the known to the unknown," we shall lead just as naturally to the music notation from rote singing as we do from oral English to written English.

CORRELATION WITH OTHER SCHOOL SUBJECTS.

1. If we are to get the real meaning of music we must interpret it. Music is a universal language, and begins where words end. It must have a distinct message for us and for our classes. All songs have been written under circumstances which are always interesting and often illuminating.

What has singing to offer that can help a grade teacher in geography? Music is the highest emotional expression of the soul of a nation. We get the truest expression of a nation in its folk songs and dances. These are many times the outgrowth of the occupations, geographical situations, or conditions of a particular people, and therefore the repetition of this folk music leads to the most intensive study of present commercial and national investigation on the part of the child singer.

Songs taught in this way have a double interest. They vitalize a lesson which might otherwise be uninteresting, and they give the child a new song.

It is more important to know the height of a nation's musical achievement than the altitude of its mountains. Better to know the emotional depths of a people's song than the linear depths of its lakes. Many of our beautiful songs contain geographical references such as "Killarney," "Sweet Afton," "Blue Bells of Scotland," "'Way Down upon the Swanee River," and hundreds of others.

In history how can we present the dominating emotions of a people to children unless they feel something of the conditions and emotions themselves? How can that be done better than through this emotional expression? Either to hear or sing these feelings understandingly means real comprehension. The very rhythm of these verses and melodies haunt your memory, when otherwise you would forget historical facts. To be true all songs that might be correlated in this way would not be of the highest type, but might still have great value in a lesson. Personally, I remember quite well having the fact of the battle of Queenston Heights very strongly impressed on my mind by that old song, "Upon the Heights at Queenston." What child does not thrill to the story of the "Siege of Lucknow," where the old Scotch women seemed to have supernatural powers of hearing, and before anyone else could discern the sound, rose up crying wildly, "They are coming, the Campbells are coming, I hear the old pibroch." Soon it was apparent to all that the Campbells were coming. They heard the pibrochs thrilling out in the night long before they had any other means of knowing that relief had come at last.

"The Haymaking Song," "The Spanish Cavalier," "Men of Harlech," "Yankee Doodle," "Tramp, Tramp, Tramp, the Boys are Marching," and scores of others could be used in this connection.

PHYSICAL TRAINING.

Where there is no instrument of any kind classes may sing to their own marching. They may use the singing games not only for a physical exercise, but to correlate with geography.

In penmanship, classes will write with better movement, greater speed, and clearer form if they are allowed to sing quietly or whistle as they write. They stick at their work, there is no whispering, there is unity of thought and action and a development of rhythm—all because singing is introduced.

A hymn reverently sung and explained helps to give interest to the opening or closing exercises.

Little children and older ones may often illustrate a song. When I was in Cleveland a few weeks ago I saw the art of several classes. It was nearly all made to express some experience or story the child had had.

One class illustrated the song—

“O tiny boat on a tiny sea,
A floating, floating,
How tiny a maiden would have to be,
In you to go boating, boating.”

They had made the sea with crayons, and then had cut the boat out of paper and pasted it on. A little maiden had been cut from a coloured magazine and stuck into a slit in the paper. The children thus expressed their own ideas of the little song.

Time will not permit me to do anything more than suggest these correlations. I have left literature, English and drama until the last because herein lies such a rich field of interest for the wide-awake teachers.

Your classes have certain selections to memorize. Have you ever taken the trouble to see if they are set to music? In the Fourth Reader, with which I am most familiar, we have many: Rule Britannia. Ye Mariners. Oft in the Stilly Night, Scots Wha' Hae, The Harp That Once, Recessional, and others.

Have you ever had your class sing Annie Laurie after studying a song of camp? Have you ever suggested Scotch songs, “The Solitary Reaper,” might have been singing? Have they ever heard any of the many songs Shakespeare has in his plays?

Have you ever attempted to dramatize your literature lesson? Once the self-consciousness is gone (and by the way, children have no self-consciousness until it is suggested by grown people) classes delight in it. They will be fairies or butterflies or engines, etc., and will use suitable songs to express themselves.

HOW TO TEACH ROTE SINGING.

The old method was for the teacher to commence the singing and to require the pupils to follow before they had any idea of the progression of the tune. In order to arouse enthusiasm and to inspire confidence the teacher frequently sang in a loud, coarse voice which the pupils unconsciously imitated.

The following are objections to the above method:

1. The teacher, when singing cannot detect errors which the pupils are sure to make, and which are very difficult to correct, once they get the wrong impression.

2. Pupils learn to depend upon a leader and lack self-reliance.

3. It is not pedagogical to expect pupils to express an idea before they have properly received it.

Time will be saved, better results produced, and more intelligent enjoyment result if the following methods were used:—

1. Read and briefly explain the words of song first, then have the class listen to a rendering. Either the teacher or an efficient pupil may sing a song for the class, and if the teacher is musically inclined and has a voice worthy of imitation, the results will probably be good; but sad to relate the opposite is more frequently the case.

Of late years, the grafonola is coming into the schools and behind it troop all the old songs and ballads, school songs, national songs, art songs, and grand opera arias. These are well sung by the best artists of the day, and are worthy examples to set before the pupils.

After listening attentively (which is in itself a lesson every child should learn) the pupils attempt to sing what they have heard. If they make mistakes they refer to the pattern again and repeat this process until they have mastered the difficulties of time and tune and can sing independently.

Incidentally, pupils may be questioned as to how the song should be sung. Even small children will recognize very readily whether a song should be sung lightly or slowly, gaily or sadly. In talks of this kind, the meaning and origin of the song is discussed and creative power and initiative is developed. A song studied in this way is sung more intelligently, and consequently is more enjoyable, and mistakes which children frequently make of misinterpreting the words will not be made.

An intelligent little girl came home from school and told her daddy she had learned a new song; she looked puzzled when she said she knew the name of it, but didn't know what it meant. Her version was "Three chairs for the Red, White Balloons."

May the time soon come when every child in this Province of Ontario will not only sing the songs of Canada; but will be able to create songs and to give expression to the great new soul of Canada.

If you are cross—sing.

If you are perplexed—sing.

If you are discouraged and disappointed—sing.

If you are happy you *will* sing and someone who is down-hearted will hear you and take heart again.

Give your children the singing habit. It will prove a treasure more valuable than pure gold.

Have a share in singing Ontario.

A FEDERATION OF TEACHERS OF ONTARIO, IN RELATION WITH THE O.E.A.

MARTIN KERR, B.A., EARL KITCHENER SCHOOL, HAMILTON.

What is the situation which confronts the teachers of Ontario? We are in some respects the most highly educated group of people in the country; we perform as important work as is done; yet we receive the lowest financial returns and have the least voice in determining conditions of our work. We are in fact subject to a form of economic oppression and intellectual repression.

What is the explanation of this situation? We teachers have been individualists. We have been working in the class room apart from the real world, in the realm of adolescence. We have been working in the class room apart from our fellow workers. We have not learned to work together. As a group, it can hardly be said that we have developed either a business or a collective sense. We have not learned how to help ourselves or to help one another. We have been unorganized.

What is the remedy? There is only one way out, and that is to build up a national, business, protective, educational organization of the teachers of the country.

I. What are the reasons for such a Federation?

1. The history of any federation—political, social, economic, shows it to have been a benefit to its members if its cause was just. The failure of any federation has been abundantly proven to have been because of inherent injustice in its purpose.

2. Co-operation and federation are a universal tendency of civilization. For years the members of the medical and the legal profession have had their associations, controlling medical and legal legislation, and determining all disciplinary and economic matters in relation to their own professions. There is practically no group of workers to-day, except educationists, that has not its own federation.

(a) The American Federation of Teachers, organized April 15th, 1916, is fast becoming a mighty power for professional and national good.

(b) Federations of teachers have been or are being formed in our Western Provinces.

(c) In Ontario the women teachers of the public schools have a federation of over 5,000 members.

(d) The H.S. men of Ontario have formed a federation which we hope may become affiliated with this greater federation.

(e) *The Toronto Globe*, in a recent editorial, says:—

“The teachers are forming a federation. The patient, pains-taking men and women who for years have laboured in the schools often under discouraging circumstances and conditions, nearly always at salaries unequal to the wage of the manual labourer, are organizing a federation with the purpose of improving their status in the community and of working together for their mutual advantage. A despatch states that it is expected that ten thousand teachers will seek membership in Ontario.

“Almost every calling is being unionized these days. The right of collective bargaining is coming into its own with a vengeance. Lasting good will come of these movements only in so far as those who have the responsibility for their direction and conduct keep constantly before them a true perspective. All action taken, to be permanently advantageous to those concerned, must bear its true relation to the public interests at large.

“But there will be much general sympathy with the move made by and on behalf of the teachers. They have been proverbially underpaid. The time and cost of training, the importance of their work, and the value of young years devoted to it, have long been underestimated by those who determined the remuneration. In so far as the Teachers’ Federation aims to secure the recognition of a responsible calling, the people generally will wish it well.”

3. Unity gives strength—potential strength, influential strength—in wisdom of action.

4. There are certain interests among teachers which are common.

5. There are interests which the individual cannot protect.

6. A federation would give teachers the opportunity of consultation.

7. It would enable the teachers of the whole province to concentrate their influence at a required point.

8. It would enable the teachers to join hands to accomplish a desirable objective.

9. To my mind the great reason, perhaps, for forming this organization is the reflex effect it would have upon the body of the teachers themselves in strengthening their courage, their faith in their calling, their faith in one another, and the recognition by themselves and by the community that they are servants of the community, and not people hired by a certain transitory set of persons to do a certain job at their beck and call.

There lies before the teachers to-night an opportunity such as we have never had before to create an organization that will help develop a real profession out of our work and attract the type of teacher that our schools growingly need, and like all opportunities, it may not pass this way again so encouragingly.

II. Outline Plan for a Federation.

(a) The Federation would be organized and incorporated with a provincial charter under the laws of Ontario.

(b) An annual fee would be levied on each teacher in the federation.

(c) A constitution and by-laws would be drawn up for the governance of the body.

(d) A well-paid organizer as secretary-treasurer would be appointed.

This organizer would need to be—

1. A teacher of experience, as there would arise many questions requiring an intimate understanding of the teachers' work.

2. One who would have the respect and confidence of the great body of educationists.

3. An organizer.

III. Provision for Maintenance of a Federation.

1. An annual fee, collected by a local body, and forwarded to the central office.

2. A permanent organizer, and an executive with a degree of permanency.

3. An official organ, used entirely by the Federation, or a Department Gazette which might become a reality under the Federation, and used partly by the Federation.

IV. Why Should the Federation be Affiliated with the O.E.A.?

1. The O.E.A. is the representative body of the educationists of the province.

2. The O.E.A. work hitherto has been academic. There is now a strong sentiment that the O.E.A. should broaden its scope and take in all that pertains to the welfare of the schools.

3. The O.E.A. has a recognized place in the province with the nucleus of an income furnished largely by grant from the Department, which grant might be increased with its broadened scope.

4. The Federation would be a specialized committee of the O.E.A. and thus become the channel through which every phase of educational work as it affects the schools and teachers would be carried out.

V. Officers and Executive of the Federation.

1. A committee of nine members, elected by the O.E.A., to hold office for three years, three members to retire annually.

2. The committee to be elected by numbered ballots by the current members of the O.E.A. who are present at the meeting.

3. Nominations for this committee to be made the first night of the annual session of the O.E.A., nominees' papers to be signed by at least ten members of the O.E.A.

An organization of teachers consolidated for service will command the attention and deserve the respect of political parties and the public. With the great majority of teachers joining the movement, it will have members in every community who could, it is conceivable, influence every family in the land. It is bound to be a potent agent for the promotion and guidance of public opinion. Upon its members, who necessarily would do much to mould the political thought and develop the economic efficiency of each succeeding generation of citizens, will depend to a large extent the future of our Dominion.

I should lay it down as the fundamental philosophy of the Federation movement among the teachers, that there can be no real democracy in government or in industry unless there is democracy in education. Democracy in government has been a conception of men for thousands of years, yet it has taken the greatest war in history to drive it home to the general consciousness of mankind. Democracy in industry—and by that I mean that those who are employed shall have some voice in the determination of the conditions of their work—has been a conception of the last generation. Democracy in education—and by that I

mean that the teachers shall have some voice in the determination of text-books, educational policies, and the conditions of their work—has been a conception of the past few years. The thought which they impart to the youth must not be imposed on the teachers. The teachers can hardly train the youth in the ways of free men if they themselves are not free. The last stand of autocracy will be in the dominion of the minds of men.

Mr. President, if I had the logic of St. Paul, if I had the persuasive eloquence of a Demosthenes, if I could speak with the tongues of men and of angels, I should have these educationists standing as a unit behind this movement and going back home to persuade others of their district to join this great movement—but, lacking all these qualities, I have yet the steady faith—and faith, be it remembered, is the substance of things hoped for, the evidence of things not seen—I have the steady faith that can remove mountains, and I believe there are many, many others here to-night with a like faith, who hope to see this movement take concrete shape before this 59th session of the O.E.A. is over.

MISUNDERSTOOD CHILDREN.

BY GRACE JOHNSTON, TORONTO.

We are assembled this week in convention to give and to receive helpful ideas concerning educational matters. Naturally the programme covers a wide range, for it embraces in its scope the interests of the Home, the School, and the State. In this Public School Section alone you represent many interests, for you are teaching a great variety of subjects. To all educationists there is, or at least there should be, one dominant interest. Is it not a fact that as teachers we are prone to give more thought and study to the subjects we teach than we do to the child to whom these subjects are to be taught?

Children are our nation builders and, as such, every consideration is due them. To understand child nature is a very worthy ambition, and a very necessary attainment if you are to be successful in the highest sense of the word; in fact, your success rests largely on your ability to bring each misunderstood child into harmony with life.

Misunderstood! You know how it feels. Recall a circumstance in which you were misjudged! Why, even the memory of it makes you all look unhappy. Now turn from that unhappy idea and think of the one who knows and understands you best. Of whom are you thinking? I'll guarantee it is of some one who understands your best self. After all, is not the best self the true self? Certainly it is. I believe that every time we fail to recognize and appreciate the child's best self we misunderstand that child.

The law of growth is the law of activity. Set in operation and keep active the kind of thing you wish to foster. Nagging, fault-finding and scolding never get you anywhere. Form the habit of looking for and remarking upon the things that have been well done, the difficulties that have been surmounted, and the honest effort that has been made. This method will act like a ray of sunshine in your classroom. By its light the children will see for themselves and will soon form the habit of correcting their own mistakes joyfully.

The fact that teachers and trustees have awakened and responded to the need of material for hand work, good pictures on the walls, and the educative use of songs, games and stories, indicates that the number of misunderstood children is fast decreasing. Ugly blank walls; torn maps, dirty, dingy furniture, are all insulting to the self-respect of both teacher and pupil. These should be replaced if there is to be an harmonious atmosphere in which clear logical thoughts and high motives are to be inculcated.

A physically uncomfortable or an unhappy child cannot do justice to his best self. The arrangement of seats, the lighting, heating and ventilation, are all important, and if looked after will save many misunderstandings.

Understanding that an unhappy child cannot study well, teachers are finding better means of discipline than the rod or the strap, and that even more dreaded instrument of torture, sarcasm, is becoming extinct.

To understand the laws of mental development is important, but there is something deeper than this, the selfhood of the individual. To understand this is of extreme importance. Let us treat children as rational beings with a will that must be respected as well as controlled. Most of the so-called obstinacy manifested by children is due to the caprice of those in control of them. To the child it is the parent's or the teacher's will pitted against his individual will, and the instinct of freedom in him rises up to resist, just as surely as certain gases rise to the surface when other gases are added to a chemical combination. It may not be your fault that you find yourself in conflict with a child, but it is somebody's fault if he has not learned that impersonal justice lies behind your demand. Arguing with an angry child does little, if any, good. You will find it better to give the rational grounds for your demand in a calm impersonal way, then give the child time and quiet in which to conquer himself.

Without self-control, a teacher is greatly handicapped. A friend of mine actually heard and saw a demonstration of the foolishness of being angry and using force in disciplining a child. What do you think the adult in this instance said? "Be gentle or I'll shake you till your head flies off."

Too much license is as harmful as too much control. License develops a weakness of purpose and a waywardness that unfits a child for personal comradeship and co-operation in the world's

work, while too much control suppresses him and hinders the growth of that originality through which he should contribute his best to mankind.

The law of self-making should be understood. What the child himself feels, does and thinks is what educates him. Avoid the awakening of feelings of antipathy which cause the self-making of the child to be narrow. Awaken instead feelings that will develop into sympathy with nature and with all humanity. A child is not happy unless he is using his own powers. A mother once said, "No matter how much I do for my little girl, she is not happy." The friend's answer was, "Perhaps you do too much for her."

Responsibility once given to a child should be left with that child.

Four-year-old Frank was dressed up in his little kilts and instructed to go to the corner store with a basket to get some groceries. He had his pet dog that had been trained to carry the basket carefully for him. Frank knew what was wanted and started off with his definite instructions in mind, quite pleased with this, his first great responsibility.

A well-meaning lady met him at the crossing and said:—

"Watch out, there is a big dog down the street. You had better take care of your little dog, he'll be bitten."

Frank replied, not in a resentful way, but very earnestly,

"I can keep care of my own dog."

It is this desire on the part of adults to relieve children of responsibility that develops in them the habit of half doing their work and of shifting responsibility.

The creative child is often misunderstood. Yes, perhaps the clock has been taken apart, or the internal workings of a toy laid out on the floor. Instead of condemning this and calling it destructive, see that the child is given something with which to create and experiment. A mother was very much criticized for allowing her son to put wires all through the house and make a muss of things in general, but, looking to the future, she was patient with the electric shocks and the inconveniences sometimes found in the kitchen. Now that boy holds an excellent position and is considered one of the cleverest electrical engineers in Canada.

Experienced teachers all appreciate the unusual child, but it is sometimes hard for the beginner to realize that they are worth while. Getting acquainted with the parents is a great help in establishing a feeling of confidence.

To you faithful ones who gladly give up your Easter vacation to attend this O.E.A. convention, it is unnecessary to speak of the part children play in educating grown-ups. Children have indeed much to teach us, and they do it by deeds, not by words. The normal unspoiled child radiates sincerity, faith and love, free from selfish or altruistic motives.

Sometimes we go away from such conventions as this, overly anxious. We have caught a vision and want to realize it at once. While not losing sight of our ideals, let us be humble and realize that there is one great Teacher of Whom we must all learn. We have a lowly part to do, but it is a part. We are not asked to take the whole responsibility of any misunderstood child's education. When your efforts are misunderstood, or when you find it hard to be patient, it may help you to recall this story. It is my last:

TWO ROSES.

A rosebud fair in a garden grew,
Tiny and pale and shy.
The sun shone out of a sky of blue,
And the soft winds floated by,
But it wrapped itself in its petals cold,
And seemed to say, "I will not unfold."

A woman came in the sunset light—
"O shy little rose," she cried,
"Why don't you open your eyes and smile?
Is it laziness, temper, or pride?
The spring is here, and the world is glad,
Why do you look so pale and sad?"

A day went by, and the rose still hid
Its face in its veil of green—
"You poor little thing!" she said to herself,
"It is very plain to be seen
That you never can grow to be big and strong,
Unless I help the work along."

With trembling hands and in eager haste
She opened one by one
The fragile leaves. "It is all very well
To wait for the wind and sun,
But gentle methods are often slow—
My way is a better one, I know."

"Don't think me meddlesome—it's because
I love you so, you see.
I cannot trust in the wind and sun—
It all depends on me!"
And she forced each delicate leaf apart
Till she reached its glowing, golden heart.

As the stars came out she stole away
Through the garden's fragrant gloom.
"It won't be long," she gaily cried,
"Till my rose will be in bloom.
And then how happy it will be
To think it had a friend like me!"

But when she chanced that way again,
Instead of her rose she found
A poor, stiff thing whose withered leaves
Were strewing the muddy ground.
A storm had beaten, the wind had blown,
And the calyx stood on its stem alone.

She bowed her head. "Will I never learn!"
She whispered, "Dear patient One!
I pray for wisdom, another time.
To wait for the wind and sun—
To trust that the power which made the rose
Will see that it lives and thrives and grows!"

Another rose in the garden grew.
Tiny and pale and cold,
"It is love," she said, "and not self-will
That will help my rose unfold.
Have I not courage, God above,
To do what is best for the thing I love?"

Humbly she knelt, and with gentle hands
Loosened the earth at its feet;
She carried water to quench its thirst;
She whispered, "O rosebud sweet,
We know not when God's time may be,
But I can do my part, you see."

Silently, sweetly, hour by hour.
In God's own way it grew—
How it warmed at the touch of the summer sun!
How it laughed when the soft winds blew!
"Help me," she whispered, "Love divine.
To know it was Thine before it was mine."

Then the moment came when she saw the last -
Of the shy pink leaves unfold,
And the air was filled with a perfume rare,
Straight from its heart of gold.
And it seemed to say, "O tried and true,
I am glad I had a friend like you!"

THE MATERIALS NEEDED IN PUBLIC SCHOOL GEOGRAPHY.

A. B. SHANTZ, PRINCIPAL NIAGARA ST. SCHOOL, TORONTO.

The materials needed will depend upon the conception we have of the aims and scope of the subject. If we merely aim at grinding into the minds of our pupils a series of names of physical features, and the memorizing of stereotyped definitions, the ordinary equipment of the authorized texts, maps, and globes will serve the purpose fairly well. But this is not the modern conception of geography as a medium of education. The possibilities of the subject are more varied than those of any other public school subject. These may be briefly stated as: (1) To impart the usual geographical information and to train the minds of the pupils. (2) To develop not only love of and pride in their own land, but to broaden their interests and sympathies so as to include other peoples, thereby making them also citizens of the world able and willing to discharge their international duties according to the best traditions of the British Empire. (3) To enlarge the mental horizon of the pupils by introducing them to as many as possible of the subjects of a liberal education, many of which are not on the public school curriculum. As 90 per cent. of our public school pupils never get beyond the public school they should be at least *introduced* to the high school and college subjects. There are great possibilities in a mere introduction; what a great fire a little spark may kindle! Geography seems to me to be a central highland in the great world of intellectual interests from which the pupils' gaze should be directed to the many surrounding fields of knowledge, and his desire to explore them should be stimulated. The study of plants and animals in the ordinary lessons leads naturally to botany and zoology. A discussion of how mountains are formed serves to introduce the pupils to geology. In dealing with the mineral, animal and vegetable resources of the country and the manufactures based on these, it is easy to give a few elementary ideas in chemistry. A question from a pupil as to how the distance to the sun or the height of a mountain is determined can be turned to account in letting the pupils know that there are such subjects as algebra, geometry, and trigonometry.

Lessons on winds, seasons, and other phenomena are incomplete if the pupils are not given a glimpse of the great subjects of physics and astronomy. (4) The great object of self-discovery and vocational guidance is splendidly served by using geography as outlined.

How unfortunate the boy or girl who leaves school crammed with knowledge, but with only a few narrow interests; especially if through lack of self-discovery and vocational guidance he stumbles into an occupation in which he has no natural interest. How blessed in comparison is the boy or girl who, by the proper use of geography and other subjects, has acquired a world of interests and settles down to a vocation in the most intensely interesting—to him or her—corner of it.

Let it not be objected that this use of geography and other subjects would tend to foster the habit of acquiring a mere smattering of knowledge. The pupils will still be trained to be thorough in their regular work. That is very necessary and good as far as it goes. But it does not go far enough. To lead pupils to study after they leave school and to make it their practice and delight to study more subjects than those on the public school course is surely worth while.

Once the aim and scope of geography are determined the selection of materials is quite easy. The difficulty consists in getting school boards to buy them. The following readily suggest themselves: (1) A specially equipped room for geography, including nature study and elementary science. (2) Maps, charts, textbooks, and geography readers in abundant variety; also in nature study and elementary science. (3) Ample equipment with real apparatus for teaching solar, stellar, lunar and world phenomena. (4) A museum including stuffed animals and an abundance of specimens of minerals and other raw materials of manufacture. (5) Pictures of life and industries: some large enough for wall use, smaller ones for seat use—one for each pupil. (6) Lantern slides and moving pictures. (7) A reference library, including books on all the cognate subjects. (8) Outline maps on which pupils can enter data. (9) Materials supplied to each pupil for making small relief maps. (10) If possible the maps for use by the teacher should be the kind that can be written upon with chalk.

THE VALUE OF DISCIPLINE IN TRAINING FOR CITIZENSHIP.

J. A. SHORT, PRINCIPAL, SWANSEA PUBLIC SCHOOL.

Ladies and Gentlemen:—

Last year we were told by Dr. Claxton, in Convocation Hall, of the importance of the school in building up the world-wide democracy of the future. He said that the child of the future must be fitted for citizenship. The increasing tendency of the world to become a single community made this vital for its well-being. Among other things it would be necessary to inculcate in the child of the future the principle that equal honor is attached to all occupations which are necessary to the existence of the race. The child must develop a spine and a soul as well as a brain and must learn citizenship as well as business efficiency.

Now what has the term discipline to do with the preparation for citizenship. Parental care and oversight extends over nearly one-third of our natural life and the latter two-thirds depends entirely upon the way we were disciplined during the first period. An infant is not many months old when it has to be denied certain privileges which would end in its own ruin, and this is where discipline begins. It is far pleasanter to make pets and play-things of our children than to train them to be useful men and women. We are able to learn from the world of nature that our strongest plants do not grow where all is sunshine. Perpetual tropical heat will make a showy growth, but is very unstable and has not the permanency or strength compared with the oak which is the product of a climate where cloud and sunshine, wind and rain are mingled together.

I believe our Creator intended us to be happy in this world but true happiness can only come as a result of order, discipline and unselfishness. Let the children's faith in the father's justice and patience, in mother's tenderness and truth, be so strong that they may stand as bright beacons to guide them from one end of life to the other.

Parental discipline is so thorough in Japan that when children go to school at six years of age no physical discipline or punishment is necessary. Japanese parents as a rule are very strict and require perfect obedience at all times. The Japanese say "Good parents are strict parents" and self control is taught in early life before the child is seven years old. It is often the very opposite in Canadian homes and seems very hard for some to deny their children the very things which may prove a curse to the child in after life. I have known mothers boast that they never deny their children anything and at the very time the statement was made the mother was a complete slave to every notion the child might have. Can you imagine the difficulty a teacher would have in trying to discipline thirty or forty such pupils at once. The sad neglect of home training or home discipline is one of the greatest evils with which we have to contend. Our experience often brings us in contact with the "spoiled child" and we can call to mind some child or, perhaps, more than one who would be classed as such. We soon picture a child whose disobedience, greed and irreverence is so marked that we can picture to ourselves the home where the unfortunate child lives. Who is responsible for this spoiling of the most precious thing in God's creation—the climax of His creative design, made in His own image? Spoiled by the parents before the teacher gets a chance to show his hand in the training of the child. Mrs. Arthur Philip in addressing the Mothers' Council in England, said that "the strictest parent is the kindest parent," but what she would say of some of our Canadian homes I do not know. During the late war many mothers were alone with the sole responsibility of the family and many of these rose to the occasion and carried on their duty nobly, while others were a complete failure and now we as teachers have a double burden placed upon us. If teachers were even upheld in the task it would not be so bad, but these are the very parents who are the first to find fault with the teacher because he or she has denied the child some privilege or exacted obedience or respect from it. The parents who neither correct nor rule their children, nor allow others to do so, keep such homes from which come the undisciplined young men and women who add to the dangers and miseries of life for themselves and others.

If parents would think of their children as precious souls whom God has given them to train for His service they would not trifle away their chance and "spoil" His little ones, but continue their efforts in training them in that prompt obedience, that self-control and self-surrender which is so admired when it is shown in the service we give to others for the sake of the good of some cause or general good in the service of the community.

When children have passed beyond the control of parents they have two voices to guide them—the voice of reason and the voice of conscience. Reason may tell you not to indulge in a certain habit or it will grow to be your master and if you obey you will resolutely turn away, or conscience may tell you not to do something and if you have been taught obedience you will obey these calls and avoid your own ruin.

Boys and girls should also be trained how to meet disappointments. There are always reverses coming to us and what is more pitiful than to see a person give up entirely and say life is not worth living, hence suicide is the only remedy. Children then should be trained to look beyond the present moment and realize that every cloud, no matter how dark, always has a silver lining.

So far I have tried to point out the need of better discipline in our homes and now I must make reference to the kind of discipline we should practise in our schools. There is no place from which we can get a better guide than from the laws of nature. Nature never overlooks a breach of her laws; punishment, and that often a very severe type, will invariably follow. There is no reprieve, bitter tears cannot even alleviate the punishment. Nature requires unhesitating obedience, neither ignorance nor carelessness can afford an excuse. Nature gives her children intelligence, but does not assist them to discover her laws. These they must find out for themselves and the labour of search is wholesome discipline, and only when these laws have been learned and their lives framed in obedience to them will nature smile upon her children. Nature is the handmaid of a loving Creator who directs all things for the ultimate and highest happiness of His creatures. But let us never forget that nature through her punishments teaches self-control and self-discipline, and that she never punishes if these lessons are learned without them. Children naturally obey those

whom they love and respect, therefore, these qualities should be taught from the first and only when these fail should we resort to government by fear. But punishment very seldom prevents a repetition of the same act and fear of punishment often causes another crime to follow. By love I do not mean indulgence any more than laxity of duty means kindness. A discipline of love either in the home or in the schoolroom will always bring that true happiness to either parent, teacher or children. The vital importance of duty and discipline from the nursery to the end of the school life is essential to true character training. Our boys and girls should be brought up in the habits of obedience, truth, purity, self-control and unselfishness, and a duty to God and man. These qualities thoroughly impressed upon the growing child would bring about a glorious reformation in the character of the coming race. The boys and girls of to-day are the men and women of to-morrow and if these know not how to obey or how to endure, how are they likely to make efficient leaders and rulers of the future. Britons have ruled in the past because they were a virile race, brought up to obey, to suffer and endure hardships cheerfully and to struggle victoriously. Love of hard work, thrift, self-denial endurance and determination are some of the marks of an imperial race. These qualities should be emphasized in all our teaching. Get the pupils to admire heroes of this type and they have gone a long way towards self-government.

Lack of discipline in youth tends to self-indulgence in latter years creating idle, selfish, pleasure-seekers among the rich and tramps, loafers, corner boys and hooligans among the poorer classes. An undisciplined race is like a building founded upon quicksand that is without a solid foundation and is sure to come to ruin in the near future.

A good teacher like a wise parent has so won the confidence, love and respect of the child that his orders are never questioned and unhesitating obedience follows.

The discipline which leads to prompt obedience and to the formation of noble characters is too often lacking in our Canadian homes and I fear in too many of our schools. Some parents object to having their children disciplined at school and thus make it impossible for the teacher to develop the moral and mental capacities of other children committed to his charge. The influence

of such discipline spreads far beyond the home where it originated and the teacher is handicapped to prevent the evil. Such opposition is a serious evil and endangers the future of society.

The supreme object of every teacher is to produce good citizens—men and women who will play their part in life “justly, skillfully and magnanimously,” as Milton says—good fathers and mothers, good husbands and wives, good patriots and good citizens. This is the true aim of education and we should not look only at what the boy or girl is to be when he or she leaves school, but how they will acquit themselves as men and women when they assume the responsibilities of mature life.

When the thought of citizenship claims so high a place in the training of the young, we should make it a vital matter to rightly apprehend what is the nature of true citizenship and how each individual citizen affects the state. Individualism, if it means the rights of individual men and women, counts for little or nothing. Each individual is merged into the society to which he belongs. It is our duty, therefore, to educate our pupils in the laws of civic discipline and public duty. Our country is an ordered community and we are indebted to it for nearly all the safety and comfort of our lives, for our personal liberty, for our supply of food, for culture, for the world-wide dignity to which our country has attained. The supremacy of law is the most deeply cherished principle of civilization.

It is, therefore, a necessity as well as our duty to train the young in a sense of obligation to the state and in the habit of obedience to the law.

Most teachers maintain a strict discipline, sometimes so strict as to provoke a reaction in the days following school-life, while other teachers have also failed if they have not impressed upon their pupils' minds the nature, magnitude and dignity of the Empire and the responsibility which rests upon each as a citizen to preserve and develop it.

Many subjects regularly taught in school afford a great deal of help in teaching the duties of citizenship. Geography is especially well adapted to this. The difference of climate, products, industries and civilizations in the various countries should be

dwelt upon as these subjects have a great influence on the coming generation of citizens. History as it should be taught—by this I do not mean learning a few acts or dates to pass an examination—will give the pupils a desire to know more of the civilization of other countries and be able to compare our civilization with theirs. To young people, perhaps, the most attractive part of history is biography and just as they learn the results accomplished by strong men who were well disciplined in youth they will be more willing to submit to our form of discipline as a means to acquire some distinguishing honour in later years. The Battle of Waterloo was not won merely on the battlefield, but the preparation for that great victory was made at Eton, Harrow, Rugby and other schools of similar distinction in those days. Such discipline will always bear fruit and we should aim at creating a fortitude or hardness of character that will stand the test when it comes. Men often shrink from the obligation of citizenship because it deprives them of some pleasure and I believe the luxury of the rich is the explanation of the strong vindictive feeling which lies behind socialism to-day. The child that is brought up in luxury is seldom the good all round citizen equal to the child who has had the hard knocks and difficulties to overcome in youth. Our public schools, I believe, turn out better average citizens than our private schools, and the more money a child has to spend the less he will sympathize with suffering humanity. He who has never felt the want cannot know how to sympathize. We should teach children what it is to sympathize with those in distress for sympathy binds a nation together.

It should be the object of both parents and teachers to inculcate an enlightened spirit of citizenship. To do this we must impress upon our young people their indebtedness to the state and their duty to serve the state in return. True citizenship will not be unmindful of international rights and duties. The selfish boy or girl has not been taught the joy which arises from the knowledge of helping some one. Joy appeals more readily to children than necessity so we should emphasize the joy or satisfaction which comes to one for doing a kind or needful act and let the goal be the practice of that charity that loveth all, that endureth much and suffereth long.

One of the best means to get obedience from our pupils is to expect it and give them to understand that they have failed in our estimation of them if obedience does not always follow each suggestion. We should never attach a threat to a command for when we do we issue a challenge to the pupil. It is human nature to accept a challenge and even very young pupils show themselves to be very human. The experienced teacher looks ahead and sees what the result will be if the child does not obey and I wish to emphasize this fact that we should see our boys and girls as men and women and continually ask ourselves whether we are making the best citizens out of the raw material entrusted to our care. We should always insist upon every obligation being fulfilled. It may seem only a "scrap of paper" but the honour of keeping a promise is of inestimable value. This honour should be impressed upon our pupils by every possible means. The words of Nelson before the battle of Trafalgar and the signal from his battleship, "England expects every man this day will do his duty" stirred every British heart and we know the result. What could be better than having some similar motto for our boys and girls and having some means of rewarding brave, and unselfish deeds which so often reveal the character of some boy or girl.

The best citizen is the one who is able to meet every emergency; and it is only by keeping proper ideals before the pupil that we can hope to lay a foundation for such a future. So often we find a nation or people unprepared for the least calamity which might befall them. This makes it necessary for us as teachers to so instruct and discipline the rising generation that if ever the time should come again for national defence Canada, at least, would be able to stand the test again. Three things should always be emphasized—first, a new and vivid sense of the meaning and obligations of citizenship; second, that he may be physically and intellectually prepared to defend his country; third, that his capacities and powers should be so directed as to make him a useful and productive citizen.

Each boy and girl should feel that he or she owes a duty to society and that others are depending upon the part he or she may play in the game of life. The best way to teach this, I believe, is by well directed team play. We must teach our boys and girls to

play fair always, and the moral value of such play cannot be overestimated. No better opportunity is presented for acquiring those inestimable qualities of obedience, unselfishness, sacrifice, courage, perseverance, honesty, self-control, courtesy, loyalty and the spirit of true democracy than team play. The discipline in playing the game, according to the rules of the game, affects the whole life and produces citizens, who are not only law abiding, but have that respect for others, which is too often wanting in social life. Many a boy or girl learns by this means to control his or her temper as well as tongue and hands by wisely directed play.

I cannot close this paper by any better plan than to make some reference to the work done by our Juvenile Courts, and, I believe, our Juvenile Courts are making many a good citizen out of what would otherwise be a villainous criminal.

Juvenile Courts are established under The Juvenile Delinquents Act, a Dominion Statue of 1908, and most of the provinces have a Provincial Juvenile Court Act supplementing the Federal legislation. Alberta and Saskatchewan are the only provinces where the Dominion Act is universally in force by Proclamation, but it is in force in certain localities in the other provinces where there are proper facilities for carrying out its provisions, as follows:—In British Columbia the cities of Vancouver and Victoria; in Manitoba, the City of Winnipeg, the Dauphin Judicial District and the Eastern Judicial District; in Ontario, the cities of Toronto, Ottawa, Stratford, Kitchener, Brantford and Galt and Town of St. Marys and counties of Perth, Waterloo and Brant and the Judicial District of Temiskaming; in Quebec, the City of Montreal; in Nova Scotia, the City of Halifax and the County of Pictou; and in Prince Edward Island, the city and Royalty of Charlottetown. There are plenty of places where it should yet be adopted. Ontario should make it general.

The method to be pursued with respect to Juvenile delinquents—is of great importance to the community. Crime is very largely preventable. Criminals, unlike poets, are made, not born, and mostly made in childhood. Criminal careers begin in childhood. The character of the adult is fixed by time and habits. Children are very plastic. One writer compares a child to a lump of putty,

easily moulded, ready to take character and form from its surroundings. Actions gradually harden into habits and habits shape into destiny. Heredity has no direct effect upon the moral character of a child any further than mental or physical weaknesses which may be more or less affected by environment. Morals are not inherited, every child is born neither moral nor immoral, but simply an unmoral being. A child is an innocent being—it does not know right from wrong. And it is from these innocent children that most of our criminals are made. Until about a quarter of a century ago punishment was the only thing prescribed. Punishment is not a remedy, it is only a means of making hardened criminals, which become a tax on our country for their support, besides the loss to every community by having these men and women withdrawn from useful occupations. Now the Juvenile Court inflicts no punishment, but finds out the condition of the child and how this condition may be remedied. It deals with the boy and plans the best means of making a useful citizen of him. He may be committed to an industrial school, not as a punishment but for training. He is taught that his future rests with himself and he can do what is right if he tries. Suggestion is the most potent of all influences determining human behaviour. When all the surroundings suggest proper morals, it is hard for one to go wrong. Every child should be taught that he has a moral obligation and that we expect him to do what is right. Such is the method and teaching of our Juvenile Courts to-day which are doing a great deal towards making average good citizens out of what would be villainous criminals under the old system of punishment only. The Juvenile Court ignores punishment and often makes use of the words of Ellen Key, the Swedish Socialist, who said "When people use their hands to train children, it is because their heads are not equal to the task."

In closing I wish to call your attention again to the three characters of responsibility which I have emphasized. First, the responsibility of the parents and the duties which they owe, as parents, to their own children. Second, the part the teacher has to play in supplementing and sometimes correcting the work al-

ready done by the parents. Third, the place filled by our Juvenile Courts which deal usually with the truants or incorrigibles which by some means or other have succeeded in getting away from the teacher and beyond the control of their parents.

The kind of discipline, therefore, to which our boys and girls have been submitted in early life determines the character of citizens they will make when they have grown to the years of responsibility.

HOT LUNCH IN RURAL SCHOOLS.

MISS JEAN G. SMITH, S.S., No. 22, CHINGUACOUSEY, BRAMPTON.

Years of warfare and reconstruction have shown to the world how implicitly she depends on the man of the soil. In our own land we are fast awakening to the fact that rural life in Canada is Canada, and must be acknowledged as such. From ocean to ocean sweeps a wave of progression in the educational advantages of rural districts in order that the coming generation may be qualified to fill creditably the positions of leadership which they are entitled to hold.

To one spending year after year with country children, it is not a mystery that so many of our great men have spent their early years on the farm. The home environment of the farm boy is elevating, educative and conducive to manhood; but it is a regrettable fact that so far as his school is concerned he has had a deplorably small chance. The rural school (above any other) needs the experienced teacher, the progressive teacher, one with an ideal and a will to live up to it—and not the cheap teacher; for it is at the same time a wonderful privilege and a responsible task to guide, year after year, the mental, physical and moral development of these men of to-morrow. Social advantages and higher salaries attract our teachers to the city as soon as they have had experience enough to prove their worth. To one who feels the needs of the rural school, it arouses the height of indignation to hear the question, "Why waste your time in the country?" Fie upon it! and upon our school system! and upon our Canadian farmer, if the best he can get is too good for his children for no other reason than that he must come up from the paltry allowance eked out to the average rural school teacher.

The Province of Ontario is calling for a new rural school and the old school is passing out. It has been said that "some very good work is being done," "let good enough alone," "beware of drastic changes yet awhile." Truly *some* very good work is being done, considering the disadvantages and the endless retarding conditions that exist.

To the work of the rural school has been added in the last few years, Agriculture, Manual Training, Household Science and lastly hot lunches; and we hear it echoed, "Hot lunches for school children! For the land's sake what next!" Yes, for the land's sake, for Canada's sake, for the sake of the children of to-day, and the Canada that is to be. Probably no new scheme has received such ready approval on the part of parents and pupils and been at the same time so unpopular with teachers. So far as I have been able to learn the County of Wentworth, the inspectorate of Mr. J. B. Robinson, is ahead in this work, having at least fifteen schools where a hot dish is served to supplement the noon lunch. Halton has two, Wellington two, and Peel four, so few that it would seem an unworthy cause. After all, is a hot lunch desirable? Is it necessary? Is it possible?

Go, from your work at noon, to a restaurant and sit down to a cold, dry, lunch beside your neighbour with a dish of steaming hot soup and there ask, is a hot lunch desirable? There are feelings too deep for words and they don't all lie in the heart.

Is it necessary? Picture twenty or thirty live, growing children, wakened before they are satisfied with sleep, hurried in preparation for school, partaking of a light breakfast, often none at all, trudging a mile or two miles, perhaps through fresh fallen snow, three hours of energetic study, exercise and recreation, then sitting down to a cold, dry lunch. Many dinners will be folded up half eaten. There is a time when hunger gives place to headache and we cease to realize that hunger is the cause. Parents wonder why the lunch is brought home; they try one dainty and another, but still the lunch comes home. Where a hot dish is served, such as a nourishing stew, or a plate of soup, pupils bring more lunch from home and eat all they bring. During the afternoon they are less restless, more studious, more attentive, more comfortable and consequently much happier. If you cannot see the necessity for a warm nourishing lunch, tell us not that the school aims at physical development. I have yet to meet the one parent, trustee, or teacher who is not ready to acknowledge it an excellent thing—if it could be done. And yet it is with great difficulty that teachers are persuaded to undertake this work. There must be some reason for it.

There is one enormous hindrance to all the new work and that is the curriculum of the public school. We have no curriculum in the rural school, positively none. We are supposed to be working on a curriculum prepared for the urban school, the graded school with six or eight teachers finding it a somewhat strenuous task to cover the work satisfactorily. Ask a teacher in her early experience in a rural school where she finds her greatest difficulty and she replies in a tone of despair, "I cannot get over the work." No room for scientific teaching, satisfied to "get over" the work. Alas! for the joy of the teaching!

And yet that abominable blue book is haunting the desk of every rural school teacher, year after year, and the pity of it is that so many, for lack of a better, are trying to follow it.

Between the years 1903 and 1917, the percentage of the public school pupils of Ontario, who were in rural schools dropped from fifty-eight to forty-two, and those attending urban schools increased accordingly. One would consider it high time to legislate for the rural school and by improved conditions help to bring our children "back to the farm."

And now as to how the difficulty was overcome in one school and I hope there are many more. Please pardon the personal tenor of the balance of this paper; my own experience was asked for. I well remember the day that I threw aside the curriculum, determined to "work out my own salvation" with, I must say, much less "fear and trembling" than I had experienced in trying to follow what was never intended for a rural school. Our course of study has four grades, positively no more. Pupils entering at Easter (only) and six years old can under, our phonic system, easily take second book work at the end of one year, dispensing with the task of two or three primary classes. As to the matter of the course, we take the best of everything, just the best. As to text-books, well we use a few of them. The regulations say "use no unauthorized book." They don't say that we must use all the books that are authorized. We have Agriculture, we are putting in a Manual Training table; and we have Household

Science and most appetizing hot lunches. The one thing that we have no use for is a truancy officer. Is a hot lunch possible? Give the rural school a curriculum with time for this work and we'll show you how possible it is.

My first experience consisted in a kettle of hot potatoes boiled in their jackets on an old-fashioned box stove in the Clarkson school, Peel County. It was counted a freak at that time, a fad of the teacher's to please the children. That school is now replaced by a new one with two teachers, and the need of something of this kind is felt so keenly that two months ago the Women's Institute took it in hand and engaged a reliable woman to supervise the lunch, serve a hot dish and remain in the school during the absence of the teachers at noon.

In the Snelgrove school the social spirit ran high. We were having a concert with refreshments in the basement and for our convenience the trustees bought a second-hand stove (for a dollar). This was an opportunity worth improving. We rifled the old school across the way for dining chairs and, between the old desks and the lumber on a piece of tight board fence, the boys made an admirable table. Our whole expense was an oil-cloth for the table and a few cooking utensils as the pupils brought their own dishes. However, experience is a good teacher, and we soon found objections to our scheme. The kitchen was in the basement and the classroom above. The absence of the teacher from the kitchen was not good for the cooking, the absence of the teacher from the classroom is never good for discipline, and the stairway between was not good for the teacher.

Finally a long wet spell set in and we found the basement too damp for even a short lesson. We had to quit it and content ourselves, so far as lunch was concerned, with potatoes baked in the furnace. In that same school a few years later, a pupil of that class put in an oil stove in the class-room and served hot lunch. Where I am at present, S.S. No. 22, Chinguacousy, I determined to prove the merits of the scheme before entering into any discussion with the Board. I borrowed the first second-hand oil stove I heard of and on a Saturday afternoon stove and kit were quietly deposited in the school with oil and supplies enough to start. At the end of a month or six weeks I could trust the pupils to attend to any objections that might be put up. The

Board met, decided to take over the outfit and paid up any expenses that had been incurred. I can readily understand that where the general standing of the school is below par the parents might not wish to see the teacher undertake any additional work: otherwise where hot lunch is tried and proved an easy possibility it is highly appreciated.

To become established as part of the rural school, the project must be popular, it must not interfere with the general proficiency of the school, it must take as little time as possible, make as little trouble and confusion, and the hot dish must be *good*.

Each teacher may have her own plans as to the part taken by the pupils. With us two pupils help cook, two others set table and four wash up. At the end of the week another eight take the work or rather the privilege of having a hand in this scheme which we all enjoy. At five minutes to twelve the organ starts and the pupils line out to wash hands and return with lunches to their seats where the necessary dishes have been arranged. The music ceases with the singing of grace and dinner is served. At 12.20 most of the pupils are through and washing up begins. As it is a rule that no pupil must be in the class-room after 12.30 if the weather is fine there is no loitering over this part of the work. Any teacher who remembers what it is to be a child will see to it that there are no more dishes to wash than are absolutely necessary; and, if there is one who has forgotten the child's love of play, I would advise that one to get out with the rest of the children to the nearest hillside when the coasting is good; for to be a successful teacher one must be a child with the rest.

I have been asked by a gentleman, "What would you prescribe for me?" Decidedly I would prescribe hot lunch. Too many of our teachers settle the problem of their own lunch by leaving school and allowing the pupils to run wild while they eat their hot dinner. It is needless to say that the lowering of the moral tone of the school in such cases is lamentable. It should be compulsory that no rural school be left without supervision during noon hour. Some evil seed will be sown in the hearts of these little folk in spite of our best efforts. Let us not allow the ground to be poisoned through thoughtlessness. We see them, as free-hearted children, taking the knocks of the game, persevering in the stubborn prob-

lems of mathematics, or practising parliamentary procedure on the ordinary matters of life as they put through in due form a motion "that we have potato soup for dinner." (Carried unanimously.) We see the child, and yet not the child, but the man in miniature, and it is our privilege that we may have a hand in bringing out the best that is in him, and fitting him to, some day, become a blessing to his fellow-men.

Somewhere, away in the future, we see visions of the Consolidated School, the graded school in the country. In the meantime a generation is growing up in the one-roomed school where the teacher is playing, as it were, a lone hand. Success to her.

HOW TO CONDUCT A SALARY CAMPAIGN.

CHAS. G. FRASER, PRINCIPAL MANNING AVENUE SCHOOL,
TORONTO.

The necessity for a Salary Campaign for Teachers hardly needs to be demonstrated. To be convinced of the necessity, one needs only to consider the High Cost of Living and study the volume of "*The Schools and Teachers of Ontario*" which was issued last November, and which contains a report of the salaries paid to teachers of the Province, corrected to the opening of schools in September, 1919; and, if I am not qualified to speak on this subject with some authority, it is not because I have not been identified with salary campaigns for many years, nor because those campaigns have not been characterized by marked success.

The days when a family did all its own work and was dependent upon themselves alone, have gradually been succeeded by the days of organized society, when each person specializes in some important branch of public service and, by ministering to the needs and comforts of the whole community in one line of labor becomes a useful member of society. As the years have gone by, this work of specialization has become more and more selective, up to the present highly specialized condition of society. It is no longer the doctor, the general practitioner. It is the hundred specialists, each devoting his attention to one single organ of the human frame.

In this adjustment of the services of life, each one is supposed to devote himself to some line of activity for which his special talents have peculiarly fitted him, where he will be of greatest service to all and where he will be the happiest in his employment. The greatest disaster in life is where a person selects a line of service for which he is not qualified, or, where someone else selects it for him. And sad to say, the world is strewn with such disasters, disasters so appalling that those who have the training of children in hand should do their work of advising and directing with fear and trembling.

For his labor, each one receives such remuneration as will enable him, in proportion to his skill and industry, to secure for

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himself the ordinary necessities and comforts of life; and it should enable him also, to provide for a rainy day, or for the evening of life, when his former activities are impossible.

In this adjustment of the services of life, the teacher should have an honored place. Next to mother, who brings the children into the world and cares for them in their earliest life, the teacher's work is the most important; and what returns will come to that community or to that nation, where this work is well done! How many of the men of distinction who illuminate the page of history, are directly attributed to the work of the teacher—public or private. What high qualities of head, and hand, and heart—what purity of character; what quick perception; what tender sympathy; what beauty of example—are necessary for the fulfilling of the teachers' mission—the creation of ideals, the training of memory and expression, the revealing of talents, the encouragement of effort, the pointing to the homeward path—the path that leads to happiness and heaven and home.

There was a time when the broken down soldier or sailor, without any special preparation, was considered good enough to conduct a school; and how often the children have rejoiced that the teacher was off on the spree and they had a holiday. But that day is past. We demand the highest qualities of mind and character—academic preparation and professional training—and we see no reason why the remuneration for this should not be sufficient to pay generously for the common needs and comforts of life, and to provide for the day when the teacher will be unable to engage in the strenuous duties of the class-room and the school-yard.

The experiences of life show us that the whole human race wants to get as much as it can for as little as possible. While it wants to sell in the dearest market, it tries to buy in the cheapest. Our experiences teach us also, that those things which cost nothing, or nearly nothing, are valued lightly. Portia gives expression to the corresponding thought when she says to Bassanio:

“Since you are dear bought, I will love you dear.” We therefore require a salary campaign to awaken our teachers, to arouse public opinion, and to secure the proper action on the part of the trustees.

While it might be easier to let things drift, it is the duty of every individual teacher—for his own sake and the sake of his profession—to engage in a stiff salary campaign at the right time. In my own experience, I am glad to be able to say that I had an increase every year until I was receiving the highest salary paid to a rural school teacher in the Province of Ontario—\$600, in 1885. When bargain time came round, I acted as if the question of salaries was the only consideration in life. For the rest of the year, I devoted myself to the work of the school as if the question of salaries had been banished to oblivion. In those early days, it was the individual teacher, acting alone, in looking after his own interest; nowadays, we are proposing united, concerted action; and the success that has attended the agitation set on foot by the committee on salaries appointed at the Ontario Educational Association in 1919, is really surprising ourselves, and showing what work might be done if we were properly organized.

Some one has said, that those who are engaged in so holy a calling should be oblivious of the needs of the body—that it is beneath their dignity to urge an increase in their remuneration; but we must remember that there are duties in the valley as well as mountain top experiences; and the one is dependent upon the other. God helps the man who helps himself; and the performance of our higher duties will be done better if we keep our bodies, the instruments of the soul, in proper condition. In fact, our example before the children and the world, will not be as good as it should be, if we neglect financial considerations.

A Salary Campaign is an organized, concerted movement to secure an increase in the teachers' salaries. It will require thought, ability and skill. It will require an expenditure of considerable time, energy and money. It is a special sowing for a special harvest. If you sow sparingly, you are likely to reap sparingly; but experience in many places shows that such organized efforts are generally crowned with success; and for further success, we will require such campaigns.

The object of a Salary Campaign is to lead the trustees to favorable action. In their hands, the salaries of the teachers are placed. From one side of the bargain, but one side only, they have the say as to what these salaries shall be; and they can go

just as high as they wish—"The law allows it and the court awards it." From long experience, I am convinced that the great body of trustees are inclined to go as far as public opinion will allow them; and they will thank the teachers for supplying them with good reasons for doing the generous thing, for a good teacher—one who is making his or her work felt in the community. Of course, we must remember that that word "generous," as used here, is a comparative term, and means generous according to their past experiences and their present vision.

And should there not be a Salary Campaign to increase the salary of a good teacher, as well as a Missionary Campaign, or a Temperance Campaign, or a Thrift Campaign? Should we not use all the devices that are employed in these movements for the carrying on of our work of molding public opinion in regard to the discharging of a public debt—a debt of honor—the fair payment for a service that has long been neglected—a service that has been a benediction to many a life—a service which, under God, has been the salvation of the world at this time of terrible testing.

The first step in a Salary Campaign is to create a favourable public opinion; is that not along the line of the teacher's mission? The creation of proper ideals is pre-eminently her work—primarily in the hearts of the children, but secondarily in the life of the community. For this work, you will require the accumulation of information as to what is being done in other places. This will take much work and resourcefulness to accumulate the matter that will be required, for it should include what is being done in other parts of Ontario, in the various provinces of the Dominion, in the Republic to the south of us, in the Motherland and in the various parts of our great Empire. Interesting and important matter can be had from all these, for the present movement is well nigh world-wide.

Then this matter must be carefully selected, skilfully edited and properly tabulated for publication. It must appear in the most presentable form. It must be attractive to the eye and should place the outstanding facts so as to make the greatest impression. It makes a difference how a meal is served—the clean cloth, the dainty dishes, the beautiful silverware and the little bouquet, all add to our relish for the food; and if the cook is skilful in prepar-

ing the food, having it properly seasoned and cooked to a turn. we will really enjoy the meal. How different it is when all these are neglected. Perhaps the food may be just as nourishing, but we leave it untouched. So is it with the presentation of our information. If it is skilfully arranged and printed in dainty form, setting forth the salient points, it will have a wonderful influence.

Some time ago, in one of our Toronto Salary Campaigns, one of the trustees, who was himself a skilful advertiser, complimented the committee on the dainty appearance of the matter which had been presented. I have here two samples of matter which have been presented on such occasions, and I leave it to you to say, without reading either, which one would attract the most attention and make the greatest impression, and would be preserved for future reference. The very size of the matter and the color of the cover will make a difference. When possible, graphs should be employed to make a visible presentation of certain outstanding facts.

We can hardly expect the individual teacher to do this work of arrangement and publication of information. It should, perhaps, be done by a central bureau where the accumulation of matter could be carried on to advantage, and where a specialist in tabulation could undertake the work. If the proposal of the Salary Circle, as presented by Mr. Kerr, of Hamilton, for the formation of a Business Federation of the teachers of Ontario should be realized, this work could be undertaken for the teachers of the Province; and as the years go by, a library of this information would be accumulated, consisting of educational reports, professional publications, and news and editorial clippings that would be very valuable for present use and future reference.

It is a strange community, indeed, where there is not at least a few persons—influential persons too—whose ideals on education are favourable to a fair remuneration for the services of a good teacher; but for some reason or other, they do not proclaim it from the housetop—in season or out of season—as those do, who are opposed to increasing the teachers' salaries. The former persons should be induced to express their opinions to their neighbors and particularly to the trustees. The constant drop will make its

impression; and as the trustee ruminates on these opinions while he goes about his daily duties, the thought will find lodgment and grow.

Then while the idea is leavening the community, it is important to see that proper expression is given to it, in the best form and in the most effective places. In the Salary Campaign which was carried on in Toronto, lately, scores, yes hundreds, of our outstanding and most influential business, commercial and professional citizens—both men and women—were so interested in our movement that they wrote letters to the Board of Education and to the individual trustees, expressing their appreciation of our work, urging the necessity of giving a proper salary to the teachers, supporting the proposed twenty-five per cent. increase which we were asking, and asking the trustees to grant the request. Many of these sent copies of their letters to the Toronto Teachers' Council so that we might have their expressions of appreciation before us—sweet morsels to roll under our tongue, when the work is heavy and the discouragements great.

We found a strong support for our movement, in the attitude of the press, one of the strongest agencies in shaping or directing public opinion. Not only had we the support of the English, Scotch and American Press, but of the Canadian Press, and particularly of the Toronto Press. One and all, when the matter was placed before them, showed an appreciation of our work that must be stimulating to us in the days that are to come. They strongly supported our request as moderate indeed. Their expressions of appreciation were counterparts of that famous Nelson message, that has stimulated so many of the sons of Britain to dare, and do, and nobly die.

Knowing that there were many persons who were in sympathy with the movement who might not care to write a formal letter to the Board, and yet would like to show their attitude, a form of petition was prepared with a suitable heading and space for ten signatures. Each teacher on the staff was supposed to have one of these filled. Some got three or four filled while others did nothing. You will find that condition in every movement; and what is strange is, that those who do nothing grumble the most with everything that is done and with the results; but they are

most insistent in getting all that is going. The result of this line of effort was the presentation of a bound petition with three thousand five hundred names. The alacrity with which they were signed was gratifying indeed.

We also found a strong support in the various clubs and societies of the city, the home and school clubs, the women organizations, the labor organizations and the church conferences. The accumulated resolutions in our hands is a record of what was sent to the Board of Education and must have been a powerful aid to our movement.

The purpose of all this work is to secure the approval and support of the great body of the electors so as to strengthen the hands of the members of the Board of Education, who, as representatives of the people, are entrusted with the deciding of what recognition shall be given for our services, and who were, personally, favorable to our case. The result was most gratifying. The increases to the teachers of Toronto amounted to a million and a half dollars.

One cannot wonder at the action of the trustees in keeping down salaries when we remember that perhaps the only persons who have spoken to them on this subject during the year, were (1) the farmer who has two or three hundred acres of land and has no children or even grand-children to go to school—the hired man's children do not count—(2) The bachelor who, for some reason or other, has steadfastly refrained from assuming the responsibility of keeping a wife and family; (3) The young man who is just starting in life and lacks those experiences which broaden the view and emphasize the realities and essentials; (4) The retired farmer who has nothing to do and little to spend; whose time hangs heavy on his hands and whose tax-bill is a night-mare to him from one year's end to the other.

All these make their moan to the trustees, emphasizing how badly behaved the boys and girls are, and how little they learn at school, being horrified at the salary paid to "that girl" (the teacher) which is out of all proportion to the service rendered. These, perhaps, form the small minority in the village or the school section, but they make their opinions felt, again and again, and particularly when hiring time is approaching. Why should evil and meanness be so blatant in this world and virtue and

generosity so silent? It is the teachers' duty to find out the ones who are favourable to a generous educational policy and induce them to take an active part in the campaign.

When a teacher identifies herself with the life and interests of the community, she will be given an honored place, in proportion to her personality and the influence she exerts. Gradually she will become an indispensable part of the community. She will be interested in all educational agencies for good—the Sunday School, the Church, the Young People's League, the Debating Club, the Literary Society, the Library and the Home and School Club—and she will be a strong factor in their success. She is the director of *the school*, around which the life of the community should centre; and, with proper direction, her salary will come to show the appreciation of the people. One of our teachers in Essex county had his salary raised from \$600 or \$700 to \$1,500, by a public meeting of the section.

From time to time, new questions will be coming up in current history which will cause a ripple in the life of the community if it does not stir it to its very depths. Where is the teacher then? Where should she be? If her head and her heart are true, she will be right there. Her knowledge, her tact, her influence will be of great value. She may not be getting as much salary as she should for such service; but she agreed to the stipulation and she should give no calculated or measured service. If she does, she will not know the sweetness of full service, the joy of the reaper and the glad song of the harvest home. It is to the running fountain, emptying itself each minute, that one turns for a sweet and refreshing drink never to the roadside puddle which tries to keep all its water to itself. This kind of teacher and this kind of work is the strongest plank in a salary campaign, even though it be done at another time in the year.

In the salary campaign in each centre, there should be a select committee on ways and means, who will direct the activities of the campaign, decide what shall be done, and select those who are to undertake each step decided upon. They will be open to suggestion, but should be in command; and every one must obey loyally, to the extent of his or her ability. This committee should know each step that is taken and the results. And with this information before it, should decide what steps shall be taken next.

The trustees who are favourable to the proposal, should be visited first; then, those who are *thought* to be favourable; then, those whose opinions and inclinations are not known; and lastly, those who are more or less violently opposed to an increase. As the matter is placed before each one, in succession, and he pronounces himself, he will become an active factor in the movement; if the last class should be interviewed first and you should fail to win his support, he might be able to defeat the whole plan. Set him to work last.

With the information you have at your disposal, as to what other places are paying, decide upon an objective—a good increase but not an impossible one. Do not expect the work to be accomplished and a proper objective reached in one campaign. Rome was not built in a day. Our ideals will change. I remember when my ideal was \$500 a year, which I hardly dared hope to reach; and when I did reach it, I got married to the nicest little girl in the countryside. I laugh at my ideal salary of so long ago; but there are persons who smile at my present ideal. Let us remember the action of the inclined plane and the screw—the gradual performance of a desired work.

The work in hand is to induce the trustees, or at least a majority of them, to adopt a fair scale of salaries. The facts of the case are to be laid before them—the importance of the work—the present inadequate salaries when compared with what is being paid in other places; when compared with what is being paid in other callings, when considered in connection with the high cost of living and when considered in connection with the long course of preparation that is required and the arduousness of the work. One by one, the trustees are to be convinced and led to express their views. The fisher is never satisfied with throwing out his line; he must draw in his fish. When the trustee acknowledges the justice of your claim and promises to support it, you have another worker in your cause and he can appeal to his fellow trustees in a way, perhaps, that no one else can.

Each deputation that waits upon a trustee should be carefully selected. It makes a difference who approaches one to induce him to take a certain stand. There are persons who would so antagonize me from the very beginning that I would be lost to a

cause; and there are certain other persons who could get almost anything they could ask me for. The great majority of men and women are like I am in that respect.

Make a list, therefore, of your trustees and choose carefully the persons you send to each. Someone on the staff is a close personal friend of each member of the Board—one is a friend of this one; another, a friend of that one. Recognize this personal element in the selection; the trustee will give more, and say more, to such a one than he would to a stranger.

You must also recognize the elements of efficiency in each deputation. Some one must belong to it that knows the work thoroughly—not necessarily to do all the speaking, but to be ready to speak, and to unify the matter presented to all the trustees. If you present your case properly. I have no doubt of your success; and if you have your case in good form, leave a copy of it with each trustee you visit.

You may not have any influence with a certain member of your Board; but you may have considerable influence with some one who has great influence over him. Your minister, your Sunday school superintendent, your influential church associate—all these know something of your work and your value to the community. Are they not heartily in sympathy with the movement? Do they not recognize that the salaries of the teachers have not kept pace with the general increase in the cost of living? If they do not wish us to form a labor union and threaten to strike, they should do the fair thing without compulsion. I am satisfied that trustees will respond. If they are not made of human clay, it is time for you to be transplanted.

I believe that the teachers of the "Home School" hold the most difficult, the pivotal position. It has been the custom of trustees to consider that "*as these teachers pay no board,*" they can teach for half price; and the teachers have been so anxious to have the comforts and associations of home, that they have accepted these pittances. But these "home teachers" owe it to themselves, and to their profession, to maintain the salary schedule. The welfare of the teaching profession in their community is in their keeping. They must hold their part of the line in the general advance. You know how the trustees in S.S. No. 7, in making the bargain, refer to the excellent teacher they have in S.

S. No. 3, and they impress the point that they pay her only \$527. That is a conspiracy which should be met with determination, by united action on the part of the teachers.

Many trustees do not know how to appreciate the excellent teacher they have; and they will not know, till they have lost her and "the sweet-voiced bird has flown." They have played her a game of bluff so long, and so successfully, that they will be surprised one of these days when she calls their bluff, and announces they she has decided to go to another school where the minimum salary is more than her present maximum—that she has been appointed to the staff of Toronto, Ottawa, Hamilton or London, where, by the salaries, they show some appreciation of a teacher's services. There are many teachers, in this very room, who know that by taking my advice and making a change, they have bettered themselves materially, in many ways.

"Home Teachers" would include the teachers who have been led to buy a little home in the village, and of whom the trustees have taken the same advantage. Knowing that if they should change schools, they would be compelled to dispose of their home, and that at a sacrifice—for any one considering the buying of it would take advantage of the special conditions of a forced sale—the trustees decline to make a generous acknowledgment for the services rendered. In the past, it has, perhaps, been a mistake for a teacher to buy a home. We hope a new day is dawning when we will have a business federation of the teachers of Ontario that will have a great influence, not only in raising the salaries, but also in arranging transfers and promotions. This is the day of opportunity. She knocks to-day; recognize her and seize her by the forelock.

There are other points which I would suggest if I were consulting with you privately, but which it might not be wise to mention here. We have had experiences in the last few months of which we have taken proper advantage; and if I know what I am speaking of, the advantage came our way. We hope, soon, to have some one to direct these salary campaigns with tact, wisdom and united action, as well as executive ability. There are many devices and provisions which will be arranged for when we have a good business organization. (1) A *Gazette* issued regularly with

up-to-date information as to what some boards have done and what some boards have not done; the latter suggesting to the intelligent teacher that these places would be good ones to avoid. It is said that Ireland is the best country in the world—to leave. (2) The formation of a Conciliation Board such as is provided for the labor organizations when a strike is threatened, consisting of a representative of the Department, of the trustees and of the teachers. (3) Alterations and provisions in the School Law that will go far towards making teaching a profession in name and in deed.

The following is suggested as a line of presentation for an interview with a trustee:—

1. The importance of the work of the school to the community.
 2. The value of the raw material (boys and girls) and the finished product. (Citizens.)
 3. The training required for a teacher—the cost in time and money.
 4. The remuneration should be more than a bare living—there should be provision for old age.
 5. The salaries should keep some pace with the great increase in the cost of living—every commodity, food, books and clothes.
 6. The increase in wages for all kinds of labor—skilled and unskilled.
 7. The salaries paid to teachers elsewhere.
 8. The generous increases in teachers' salaries in England, Scotland, the United States and in our own Northwest—every part of the British Empire.
 9. English-speaking peoples are recognizing the value of their teachers. (*See Literary Digest, May 10th, 1919.*)
 10. The concerted movement of the teachers of Ontario,—the Salary Circle and now the Business Federation.
 11. The clauses of the pledge: (a) to adhere to the scale. (b) to avoid supplying for a position made vacant by the Board refusing to pay the scale asked.
 12. The present are not hard times—we pay the increased prices for everything. Why not for education?
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THE REPORT OF THE LEGISLATION COMMITTEE.

PRESENTED BY MR. W. H. JOHNSTON, VICE-PRESIDENT, PUBLIC SCHOOL SECTION.

As in other years, the first care of the Legislation Committee was to prepare the resolution of 1919 for publication, see that they would appear in the Report of the Proceedings and that copies were sent to the Minister of Education and the officials of his department and a supply sent also to each of the county institutes.

You have copies of these before you which indicate how presentable they were. Formerly, our resolutions appeared in the *Canadian Teacher*, and then they were issued in the form of a little booklet which was neat in appearance and could be enclosed in an envelope or carried in the pocket. The present form is so large as to be limited, almost, to use at the desk. The question arises—which form is the more desirable?

Our resolutions should be sent not only to the Minister of Education and the officials of the Department, but to the Prime Minister, and the members of his Cabinet, to the members of the Legislature, and to the newspapers throughout the whole province. The work we have in hand is a propaganda to educate the people, to influence public opinion, and to secure approval and support for the adoption of our proposals. If such work is undertaken, the form in which we issue our resolutions is a matter of prime importance.

For us, the association year has been a peculiar one, and events have taken place, some of which have occupied much of our time, and others have necessarily limited our possible progress, so that we are not able to report the definite achievements which have characterized our reports in the past.

The first activity that occupied our attention was the Salary Campaign. There are two outstanding times in the year for renewing or entering into engagements, (1) May and June, and (2) November and December. The first of these was upon us when our Association closed on April 24th last year, and it was recognized that if we were to do anything, it must be done quickly.

Those who know of what was done, can testify that no time was lost, and the movement that was then begun is broadening in its scope and action.

CRYSTALLIZE THIS CORRESPONDENCE.

Then the great Referendum campaign occupied the attention of the great body of our teachers, and to this was added the election campaign, the result of which was such a surprise to all parties, not the least surprised being the successful parties who were called upon to form a government.

It will not be out of place for us to say that the teachers of Ontario have many causes to remember the Government of Sir William Hearst, not the least of which is his adoption of a superannuation scheme, with which the name of Dr. Pyne will always be associated; and only those who know of some of the cases that have come before the Superannuation Commission, can have any idea of what a boon it has been, or any conception of what a blessing it is likely to prove in years to come.

From the appointment of Dr. Cody, as Minister of Education, we had expected great things. He has been our friend for many years, always responding to our invitations to speak at our educational gatherings, electrifying us with his enthusiasm and his eloquence and showing that he knew the kernel of the subject he was discussing. His consent to take charge of this important portfolio was the act of a missionary. He had hardly got to work, however, when the change came; but his heart is still with us and his name appears on our programme this year.

We are more than pleased with the one who has taken his place in the new Cabinet, the Hon. R. H. Grant. Your representatives have had the privilege of meeting him on several occasions and discussing some of our resolutions very freely. His candid expressions and his good common sense shows a wide experience, and an intimate acquaintance with the workings of our schools, and he is not one whit behind his predecessor in his sincere desire to do what is in the true interests of our schools. He has been too short a time in office to have decided many of our problems; but his pronouncements on the entrance examination and a few other deli-

cate points, are some indication of how much we can expect from him. Having a family of ten, two sons and two daughters of whom have been teachers, he is no stranger to the problems of our educational system. We shall have in him a friend, a man of ability, judgment and courage.

The Legislation Committee consists of the officers of the section with power to add to their number. From time to time during the year, the secretary and one or two of his local associates wait upon the Minister or the Deputy Minister or the Chief Inspector, to urge special features of your resolutions and to discuss the pros and cons of the proposal—to learn what obstacles are in the way, or what objections can be urged against their adoption; but, usually, we have a special appointment with the Minister when the outside members are invited to attend and usually a number of our prominent members are included. This year thirty-six were invited to meet the Minister on Saturday, 24th, when we urged before him the problem of the preparation of our text books, particularly the Geography and the Readers, the simplifying of the Entrance Examination, and the examination in History, the changing of the school year to the academic year so as to avoid the inaccuracies which the present method necessitates, and the publishing of an Educational Gazette.

Our Committee on Resolutions, last year, seemed to have been of the opinion, (1) That public school teachers would be given a chance to prepare our public school text books; (p) That a new phonic primer had been prepared; (3) That an atlas would be supplied with better maps for the study of geography; (4) That a new Geography text book had been ordered which would be of more convenient form; (5) That a new text book on Cadet Drill had been prepared; but we find that with the exception of a phonic primer, which is in course of preparation, none of these have been attended to and should not be dropped unless we change our minds regarding them, or the ideal be realized.

As soon as we had our resolutions for 1919 issued, they were laid before Hon. Dr. Cody, Minister of Education, from whom we expected so much. We had several consultations with him on special points, but our associations were suddenly broken off. When Mr. Grant was appointed, we at once waited on him and

placed before him copies of our resolutions, at the same time offering our congratulations and promising him our best service in the solution of the problems that are before us, and in the interest of our common cause.

Resolutions 3, 4 and 5 are on the way of solution. Larger powers have been granted to the Local Entrance Boards and it remains for us to urge a proper representation of public school teachers on these Boards.

Resolution 11 has been enacted and now, if a child under eight years of age goes to school, he is subject to the law requiring regular attendance just the same as if he were eight years old, and is subject to the same penalties for the violation of this law.

We hope to have Resolution 12 approved and that will be a boon to the primary teachers, particularly in urban communities.

Resolutions 13 and 14 will require a change in the School Law, but that is not impossible. This year, practically the whole session is before the Legislature. In former years, the Legislature was prorogued before the meeting of our Association.

The matter of an Educational Gazette I think is likely to be solved if the Business Federation of the Teachers of Ontario is realized. If this proposal is not adopted by the general association it should be adopted by the Public School Section.

The number of resolutions that have been sent in from the Teachers' Institutes this year is larger than ever, and they deal with a variety of problems, some of which have formerly been before us. If the members would only give some thought to our resolutions, and would send the secretary the points that might be urged in their favor, the matter could be put in good shape and left with the Minister. We are convinced it would pay generously.

THE NEW INTELLIGENCE TESTS AND THE KINDERGARTENS.

PROFESSOR EARL BARNES, PHILADELPHIA, PA.

The Great War has changed the world and has left us facing a new era. Through the destruction of men and property, the disorganization of industry and trade, the imposition of vast national debts, the new emphasis on world thinking, the destruction of old ideas and ideals, and the new visions of democracy it has made great changes in our educational thinking and practice inevitable.

In this re-organization the kindergarten will find a chance for a new hearing such as it has never had before; but it will also be exposed to great dangers. The need for new grounds and buildings, due to years of failure to keep pace with population, the need for increased salaries of teachers in all grades of education, the inevitable emphasis which will be placed on adult and industrial education, and the multiplied opportunities for women workers, which tend to draw them away from education, will all tempt school authorities to undertake drastic economies wherever they seem possible.

School activities which are not absolutely required to maintain this system will be sacrificed first; and kindergartens have often been considered as side developments of the school system. If they are to be extended, or even maintained, during this next decade the public must be made to realize that they are an essential part of general education.

We must make people understand the value of the kindergarten in assimilating foreigners, in establishing patriotic sentiments and in laying foundations for the observance of law and order through right habits. The value of early social training must be emphasized and brought to public attention. But we must go further than this and show that the kindergarten gives a general training to intelligence which is of great value in all later education.

I believe the general intelligence tests, now attracting such wide interest in all parts of the world, offer kindergartens this opportunity to strengthen their work and to demonstrate its value.

Our older academic tests have measured children's ability to collect and reproduce information, rather than their ability to think and act. They tested memory rather than intelligence; and strong memory is often found in otherwise low grade minds. Outside the field of mathematics, there could be no uniform system of marking. The marker could have no standard of perfection in mind and such indefinite standards as he had, grew steadily confused with each new paper examined.

The Great War demanded quick means of classifying vast numbers of men suddenly drawn together from all classes of society. Selections on the basis of academic examinations were of little value when we needed to pick out men who could think and act quickly and accurately as officers, aviators, mechanics or organizers.

In this emergency, the leading psychologists of the United States set to work to design means for quickly testing out men's general intelligence. Starting with the work of Benet and his followers they shaped up a line of general intelligence tests which were ultimately applied to nearly 2,000,000 men.

These tests made a very wide appeal to all forms of intelligence. They were so remarkably graded that they—that the first questions—reached the lowest intelligences and towards the end they tried the ability of the ablest. They required no writing, thus eliminating the difficulties of writing, spelling, and composition. The final marking of the papers, through stencils, cut out the personal equation of the marker.

The value of these tests was thoroughly demonstrated in the war, and they are now being widely extended and applied in industry. They are also under trial in many universities, like Yale and Columbia, and they are being applied to the children entering primary grades in cities like Youngstown, Ohio.

Mr. Barnes then illustrated the use of the intelligence tests by giving the audience an examination on charts drawn from the Alpha tests used in the United States army.

In the past we have sometimes found it difficult to convince school authorities and the general public that our training in the kindergarten was deeply educational because it could not be sub-

jected to the academic tests used in the higher grades. The general intelligence tests will apply equally to the kindergarten, the elementary grades and the university.

For kindergarten use the Stanford-Benet tests, as formulated by Terman in "The Measurement of Intelligence" (Houghton Mifflin Co.) are best. These were also used in the army with low grade intelligences, that had to be tested individually. The simplest form of these tests consist in:

1. Pointing to parts of the body, in response to such directions as: "Put your finger on your nose, your ear, etc."

2. Naming familiar objects, a key, a penny, a closed knife, a watch, a pencil.

3. Pictures—The child is shown these pictures one after the other and is asked: "What do you see in this picture?"

4. Giving sex: "Are you a boy or a girl?"

5. Giving full name and address.

6. Repeating sentences: "Can you say: I have a little dog?"
etc.

As an alternative, the child may repeat three digits. "Say 6, 4, 1."

These tests must each be given exactly as directed in the manual; and there are exact directions for marking results. They seem very simple, but they are difficult for a child entering the kindergarten and there are more difficult ones for the children who can do these.

A group of psychologists, including such men as Yerkes and Thorndyke, are now working on a series of general school tests under the direction of the United States Commissioner of Education and with the financial backing of the General Education Board. When these are completed we shall be able to keep a continuous record of all children from the time they enter school. If the kindergarteners do their part we shall be able in three or four years to demonstrate in all parts of the country the superior ability of children who have had kindergarten training before entering the primary grades.

But there are many other values to be derived from such tests. They are definitely educative and the time spent in the examinations will yield as large educational values as any other time spent in the kindergarten. They will also enable us to quickly discover mentally defective children. If the tests had no other value they would be justified on this ground alone.

But the greatest value lies in the fact that after an entering class has been examined it can be broken into groups where children of like ability will work together. If two minds of different planes are to work together they must obviously work on the lower plane. A group of five-year-old children will have some members with a mental age of three, others with a mental age of five and still others six or seven. If they all work together the abler ones are held back and the weaker ones are left behind. We should still have many games and exercises in common, but for group work each child could be placed with his peers.

It is obvious that such examinations will bring about many changes in the curriculum, but the kindergarten can more easily meet the new requirements than any other part of our system. Many will become less important than thinking and every subject must be tested by its ability to awaken intelligence. It will, of course, be objected that thinking is not all of education and this is true. These tests, however, call for more than intelligence, and social power, industry and general information can be shown in them better than in the old academic tests.

The teacher will need new vision and new training to use these tests well. To academic knowledge and pedagogical technique she must add a scientific sense, a knowledge of genetic psychology as a vision of what preparation for life means.

"METHODS IN TEACHING KINDERGARTEN MUSIC."

MISS EDNA WALLACE, FORT WILLIAM.

"The meaning of song goes deep. Who is there that in logical words can express the effect music has on us? A kind of inarticulate, unfathomable speech which leads us to the edge of the Infinite and lets us, for moments, gaze into that." "The Hero as Poet," Carlyle. Because of the great value of music in the development of the body, the discipline of the mind and the cultivation of the æsthetic and ethical sense, it serves to increase one's true enjoyment, therefore every child should be taught to sing. Children were created to play and sing just as the birds and other dainty creatures of nature. Much of the sunshine of homes would be gone if there were no child voices to be heard in their play and singing. Eleanor M. Smith says: "I once saw three tiny boys sitting in a huge hat box playing the favorite game of travelling. Their gestures and expressions were so different that I was constrained to inquire as to the nature of the vehicle in which they were taking their pleasure, and the answer of the spokesman was thus: "To each one it is something different. To one it is a horse; to one it is a steamboat; to one it is an automobile. Often when I view the diverse methods by which we strive to teach children, and especially to teach them music, I am reminded of this wise infantile saying. Nor is it our methods alone which show such sharp contrast. Subject matter itself is quite as likely to appeal differently to different educators. In the kindergarten the value of certain phases of the subject seems especially a matter of individual taste or judgment. To one the all-important thing appears to be the study of rhythm; to another a training of the sense of pitch; to a third the singing of many songs and in the kindergarten, as elsewhere, the vehicle often seems more important than the destination to be arrived at." To my mind we devote much too little thought to music in our schools. With the exception of our larger cities the musical education of our children is limited to the kindergarten and whatever haphazard attention as may be given to it by the individual teachers as the child passes along from grade to grade. Really to the kindergarten is

left the burden of musical training. And it being a freer form of educational activity is very apt to show differences in the quality of its product. Considering the great scope to be seen as to matter and method in different kindergartens it is not surprising that estimates by critics of the value of kindergarten work in music should be exceedingly diverse. Let us ask ourselves the question "Do we believe our kindergarten training to be of value to the subsequent musical development of the children?" Surely that should be our aim. Naturally there are exacting demands upon us for the child is with us only during the ten earliest months of his school life. But let us criticize ourselves. Our music must surely express its essence—that of "Happy Thought." The song should make the child happy, not only because of its rhythm and melody, but also because of the thought contained. That thought must be impressed first unconsciously. Then only comes spontaneity and heartiness, lacking which, the virtue of the song is gone. "Please let's sing it again." That surely is our reward. I have found that playing the melody of a song during the quiet time is a very effective way of introducing it to the children. The child absorbs it unconsciously. Then if the thought has been imbedded, the actual mechanical part is lessened very very considerably. No song can be well learned without having been heard many times by the children before they attempt to sing it. Numerous repetitions of the unaccompanied melody with words must precede the child's attempt to sing it. Here, too, we may criticize. Often either teacher or piano is too much in evidence. The accompaniment should add to the enjoyment of the song. If the melody be not firmly fixed, the premature introduction of accompaniment only causes confusion. It should never cover up the melody. The teacher should lead when introducing the song and gradually sink into the background.

Much of the song material in common use is too difficult, both words and music being ill-adapted to the needs of little children. Both words and music are too lengthy. Often I have found the chorus of a song sufficient for the child mind cannot grasp as many thoughts as the adult. Our scope is large. There are songs for the seasons, songs of the trades, songs for the mother play, religious songs, patriotic songs and the ever-beloved nursery rhymes. Then

comes another grave criticism. Too many songs are taught and too few songs are taught with sufficient care and thoroughness. Too often children are not taught to sing in time and tune. The range of the voices of tiny children is not observed and most songs taught are out of their compass, being most often too low. If we realize from observation of the voices of little people that many of even eight and nine years sing middle C with difficulty we cannot fail to observe the enormity of the injustice done by forcing the voices so much lower than nature has tuned them. Conditions of life tend to rob the voice of high, light tones and we must strive to avoid imitation of our low tones. Often the piano is used unskillfully and is used too much so that children are made dependent upon its support. Unaccompanied singing should be practised to a large extent. Rather let our aim be fewer songs thoroughly taught, than the greater number and poorly learned.

Eleanor Smith says: "There is no doubt that school music is indebted to the kindergarten in many important ways. The adaptation of music to all phases of the child's activity, an idea taken up and extensively used by school people of the more progressive sort, was worked out in the kindergarten long before it was dreamed of in the school. The rhythmic game with its fine educational possibilities was transplanted from the kindergarten into many schools and I am inclined to think that even folk dancing owes its vogue as much to the kindergarten as to the gymnasium. The kindergarten is willing to devote time to music. The daily fifteen minutes so sparingly granted to singing in primary grades, and so frequently curtailed in later years, would never suffice for the most unmusical kindergarten. It is not, I think, an unreasonable demand that the kindergarten deliver its children to the primary school in a normal vocal condition. Habits of light, high singing will insure this. From the purely musical standpoint, that is, from the standpoint of the ability to sing in time and tune, much should be accomplished by the ear training now so general in the kindergarten." The ideal of the teacher should be to send no tone-deaf child on to the primary. But quite occasionally we find a child with a defective ear, and oh! what a ruination they can produce of our class singing. Still we must be

wise as serpents and harmless as doves. We must not kill the spontaneity and pleasure in song—while we must be careful to guide the ear and voice into the right paths.

We have much to learn. Surely we cannot teach our children a song about everything, even in their own little world, in a short year. We should remember that our foreign children with the handicap of language demand different consideration from that of the Canadian child. The song must be told and the children must be taught to regard the song as a music story—full of life and thought. The story may be used by him to convey its thought to others, and with animation and expression. The picture illustrating the song thought, if presented before the song itself is of wonderful value.

“The earmarks of a good music teacher of little children are chiefly these: A balanced view of the subject, ability to do, good taste, knowledge of material and power to adopt it to different stages of development. These accomplishments are the result, first, of good training; secondly, of experience, reflection and keen sympathetic observation of the individual pupil. To know how things seem to the little child will be as important, as it is an uncommon part of the teacher's equipment. To know what words are a huge empty sound and how to make these intelligible; to know what idioms can easily be incorporated into his vernacular; which melodies are educative as well as appealing; which rhythms are refined as well as captivating; all these abilities will be found as the basis of the good teaching of little children.”

URGENT NEEDS FOR ADVANCEMENT OF KINDERGARTENS IN ONTARIO.

MISS CLARA BRENTON, LONDON.

Following the action of your Committee of 1919, formed for the purpose of extending the kindergarten, we noted with satisfaction that bulletins were sent to all Ontario High Schools, with the result that a larger number of students was enrolled for the kindergarten course from outside centres, seeming to indicate that a spreading interest in kindergarten has been awakened. Notwithstanding this gain, on making a survey of the Province from the report of the Department of Education, it has been found that the kindergarten is steadily being supplanted by kindergarten-primary. We recognize the value of kindergarten-primary, but, believe it cannot take the place of kindergarten. Each meets the *need* of the child, *but at different stages*. That you may be enabled to *see* conditions prevailing in Provincial kindergarten work we of London bring you data in *printed* form, believing that this method will be more convincing than a mere verbal explanation of the viewpoint we take. We know that the appeal to the eye will be more effective than to the ear. Does not this data *at once* reveal to you a depression in kindergarten expansion? Can we account for this retardation, when to-day as never before in the educational world, manual training, organized play—the social aspect of education, etc., are the most vital problems being advanced. What are the weaknesses of the kindergarten system? Do they exist merely in the minds of school trustees, ratepayers and others whose vision might be clouded?

Can we locate any weak spots? Locating them, will be of small value if practical means for their correction cannot be evolved.

In the medical world, it is said, that there are plenty of doctors who can cure a disease once they know what disease it is. But diseases are elusive things whether in the physical or in educational world. We are told that the work of great scientific investigators bears the impress of *training, hard work, and a naturally keen mind*.

Could we, in our profession, lay claim to such deep devotion as is uttered in these words of the late Sir William Osler. "Loving our profession, and believing ardently in its future, I have been content to live in it and for it."

If in this Round Table discussion we are able to even glimpse *the real situation*, what might we not do for all the little children in Ontario of kindergarten age!

The kindergartners of London (though but few in number) having discussed this condition, have come to the conclusion that the only satisfactory solution of this regrettable situation of kindergarten work throughout our Province is—the appointment of a *Provincial Kindergarten Supervisor*. We submit the following reasons:

1. The need of organization of all centres.

- (a) Such would standardize the purposes and practices of the kindergarten teachers. While we do not put up any defence for *mere uniformity*, we believe that there has crept into the kindergarten such very great *divergencies in practice* that oftentimes much too advanced work has been allowed the children of kindergarten age.
- (b) With the said organization, the problem of Promotion; could be ably studied—Whether it should be age; convenience; course covered? In many centres the kindergarten children are used by the principals of schools to play the game "Fill the gap"—The gap being in this instance the vacant places left by primary children who have been promoted. With the appointment of the said supervisor, it will be but meeting a *Provincial need*, a need such as cities manifest in their appointment of local supervisors. It will extend to the small and isolated centres the privilege to "link up" and share the vitality of the bigger life of the whole. We firmly believe with an eminent administrator in the world of Commerce who said "that the machinery must be limited to the absolute needs and should not be introduced for the sake of its "shiny parts" or the pleasant whirr of its wheels."

2. Claims advanced.

- (a) Summer school trained teachers *need* supervision by one in close touch with the work.
- (b) Deterioration in practices—prevented.
- (c) Purchasing of equipment and supplies wisely regulated. (This also from an economical point of view.)

Lastly, but not by any means least, is the *inspirational power* that we as individual kindergartners in *every* centre, would feel, had we the guidance and sympathetic insight of a large-visioned kindergartner.

In consideration of the foregoing we beg this section of the O. E. A., while in session, to present *these our claims* to the Minister of Education with the request that a Provincial Supervisor be appointed.

“CLAY MODELLING FOR THE KINDERGARTEN.”

MISS MABEL CUNNINGHAM, OTTAWA.

The central idea of this paper is that there are forms of beauty and usefulness which have been developed through long centuries, which can and should be made by children at the earliest possible moment in their school life.

Some of these forms they handle in the “Gifts,” but in order to really understand their significance they must shape them with their own hands, and, I think, *shape them many times*, until they become familiar with them.

This repeating of work until it is tolerably well done would be of the greatest assistance to the teachers of the succeeding grades. It would give the child an opportunity to acquire skill in the using of clay, and would give the kindergarten teacher time to introduce a lot of interesting and valuable matter connected with the history and the origin of these shapes and forms.

Also, there is no need to allow a child to strain after originality in handwork until he has at least learned something about these forms to which we owe a lot of our culture and our comfort in life.

There will be opportunity as the course progresses, for a child to model his polar bear or his little statue, which will be more intelligently and satisfyingly done after a good grounding in regular forms.

There are very few people in the world who can model a bear from memory and I think that the educative value of carefully attempting a good common form is greater than that of playing with a grotesque figure which makes everyone smile at first sight.

There must, of course, be a lively interest maintained in the work, and this can be accomplished by skilfully arranging the matter to suit the locality and the time of year, and also by the mental pictures called up by the fascinating talks of the teacher.

I would begin the actual work in clay by making a ball, large enough to be a handful for little people, and would talk about it as I made my sample before the class:—“A ball must roll and

spin, and must be equally balanced. It must be very carefully made. It is one of the most necessary shapes in the world for the playing of games. It suggests the shape of the sun, the moon and the stars. It represents the known shape of the earth, which makes possible day and night. It is used (as ball bearings) in all fine machinery, in every bicycle and auto." I would show the children a ball bearing and let them prove how it would lighten the wear and tear of moving parts.

After making a ball carefully, showing how to use only the fingers and not the hot palm of the hand, I would give each one sufficient clay to copy my model full size, and let him make a ball as often as he wished. I would keep all the finished ones and mount the best of them on slabs of clay to be kept for reference.

To get a smooth finish on the clay it will be necessary to allow it to dry a little before polishing. *See sample No. 1.*

For the second lesson:—Make a ball as in the first lesson and from it make something which appeals to the children very keenly. *See sample No. 1a.* This is made by cutting the wet ball in half with the wire tool, and hollowing with the fingers or the wooden tool to the desired shape. This shape might vary with the child so long as each one had something definite to show for the lesson. The cup handle is shaped on the table and fastened on with thin, creamy clay, used as a cement. The spot where the handle is fastened must be wetted before the joint is made. An orange, apple, pumpkin-face, etc., might be substituted for the cup and saucer.

Sample Model No. 2. A Cylinder. This is more difficult than the ball, and is made by rolling the ball of clay on the table with the tips of the fingers. The ends will become hollow at first, and must either be filled up with soft clay, or cut off with the wire tool.

This cylinder is the usual shape for a column. Columns have been used from the beginning of civilization in all countries, and were probably suggested by the trunks of trees. The earliest known columns, being carved in direct imitation of tree trunks, support this idea.

From the cylinder, shape a pitcher or a vase of cylindrical shape and hollow enough to give the suggestion of usefulness. See sample 2a.

If this is too difficult, make the cylinder into a gate post by putting a ball on the top of it, and a square base underneath it. It would help to have various designs on the blackboard and to show the making of several in your demonstration.

Sample No. 3, is a cube, very much more difficult than the cylinder. Make a ball first, as before, and gradually flatten it into the cube, trying to keep the faces all the same size from the start. It is a good plan to try the cube in different sizes, to show that the shape does not vary with the size. Show also how building might be done with a number of the cubes and some of the creamy clay slip.

From the cube make something of interest such as the pen and ink stand. *Sample No. 3a*. This one was built up of thin sheets of clay, but it might be better to make it from the solid cube and a small hole for the ink made with a thimble. The lid is a lesson in attaching a ball to some other surface and the clay must be fairly soft and must be well wetted before the two pieces are pressed together. The balls for the pen rack might be placed differently, or made in some other form depending upon the fancy of the child. If this is too difficult, a box might be made with the lid and the lock suggested by pencil lines in the wet clay.

Sample No. 4 is a square prism, made in the same way as the cube. This requires more clay, and it might be made considerably larger, so as to form part of the house (sample No. 5) using the triangular prism for the roof. This house will be the most interesting piece so far for every child knows something special about his own house, and will try to embody this in his model. The doors, windows and shingles are marked in the wet clay with an indelible pencil.

Following the triangular prism is a pyramid. This is not hard to make and is one of the most fascinating of the ancient buildings to talk about to children. The pyramids were built to last forever, to withstand all weather, and to be safe in all winds and floods. They had a small chamber in their strongest part, (for

the burial place of their kingly builders), and were connected with many curious and significant ceremonies in the religious life of the Egyptians.

It would be a good plan to have a number of pyramids set up as they are on the banks of the Nile, and to attempt to show the proportions of even these huge monuments compared with the vastness of the surrounding desert.

Sample No. 7. The canoe is a suggestion of what I would set a child who had finished regular work ahead of the class. Along with the canoe I would give free scope to any imaginative problem which might suggest itself to the child. A number of simple animal forms by some good sculptor, might be introduced for copying, as they would tend to prevent children making something never seen in the heaven above nor in the earth beneath, nor in the water under the earth.

The modelling of fruit or leaves on tiles is a good form of extra work, but is not very suitable for a whole class, as it necessitates a lot of material for copies.

We come to the last sample, the village. A community model. In this every child makes and places a part, and this may be carried to almost any extent. It may take a few lessons or quite a large part of the season at the discretion of the teacher.

It gives a good training in proportion, in the careful fitting of each piece to the whole scheme, and offers a great chance for incidental teaching. It shows how a church looks from the top, how it is usually in the form of a cross, and enables us to tell the children how different crosses in the past have been the emblems of different religious orders.

It shows how roofs are made, how chimneys are put on, how the streets may be wider or narrower depending on the locality and the demands for street cars in some quarters, and how different types of architecture are best fitted to each particular public building.

If we live on the sea-coast we could make our model embrace the harbour and its piers. If we live in a city which is a railway centre we could use the great stations for a model.

All the things I have mentioned, from the ball to the city architecture, are things which will enter largely into the life of every child in your class, enter as real things, and also as symbols. The children are vitally interested in such things as:—Crescents, crosses, circles, suns and stars. They love stories about such things as the swastica, the fleur-de-lis, the lion and the unicorn, and heraldry in any shape or form.

The wise use of these things will result in their imbibing the highest ideals for their own lives and for their country. I would fire their imagination with all the glory of these old symbols, always for newer and better means of interpreting them, and would tell of the good and true men and women who have used them down the ages, to the honor and glory of the human race.

I would keep as many of the children's models as possible and would bake them to render them permanent, and would give each one *enough to take home*, to be a reminder of the days when he was being introduced to such an interesting and wonderful life.

There has been, possibly, too much work of a fragile nature in the clay work of the kindergarten, work not very well suited to clay at all, and work requiring the addition of sticks, wire, paper, etc., to complete the scheme. Nothing but clay will stand the heat of the kiln, and this constitutes a simple test as to what is suitable for a clay-work model. Unless the work is fired in the kiln, it is usually fired into the waste basket or pail, and there is little or nothing to show at the end of the term. Fragile clay models will crumble and break with the slightest handling and become only an eye-sore in a room, whereas once they are fired they can be carried from school to school or home, and back again, and will last forever (so far as we know.)

Two or more colors of clay are desirable. These may be made by mixing in dry painter's colors for unfired work, and oxide of iron for red color in fired work.

The clay should always be moist, never wetted up on the day of the lesson. Clay which has been used and broken up for use again should be soaked in plenty of water to wash off the oil and dirt, the water drained off after settling, and the clay left to evaporate to the required consistency before covering with the wet cloth.

For older children, or those repeating the course, we might add a list of models such as:—Pots or dishes for holding painting water in art lessons, egg cups, simple flower baskets, candle sticks, ash trays, and tea-pot stands.

Finally:—What do we want to get out of all this? Some knowledge of the classic forms, of the history and present use of symbols, and a grounding in good, honest work, which will stand the children in good stead all through life, and longer if necessary.

ARTHUR CROWSON,

OTTAWA.

HOUSEHOLD SCIENCE SECTION.

PRACTICAL SUGGESTIONS IN THE TEACHING OF CLOTHING.

MISS A. E. ROBERTSON, UNIVERSITY OF TORONTO.

It is being realized more and more that a good course in sewing means much more than the actual practical work. "From a narrow, limited beginning, consisting of instruction in the various stitches, and in cutting and making simple garments, 'sewing' has broadened in its scope so as to include, not only practical training in the making of clothes, but also skill in buying, taste and judgment in choosing and wearing them. It includes also a knowledge of the value of fabrics and of conditions under which they are made and sold." In many schools and colleges, the name "sewing" has been changed, and the title "clothing" or "textiles and clothing" has been substituted. The new name indicates a new content in the course. For example, the construction of an apron or a middy blouse, gives opportunity for textile study in the choice of material, the study of patterns and their economical placing, the study of many sewing processes to be accomplished by hand and by machine, the hygiene of clothing, including the laundering of simple articles, the comparative cost of home-made and ready-made garments and other topics of interest. What a rich thought content we may have in this field of work!

The time allowed for Household Science work is so limited that it is not possible to teach all phases of this subject. Each teacher must choose her own subject-matter, adapting it to the needs of her pupils. Nor is it possible in the time at our disposal, to offer suggestions for the *teaching* of all phases of this subject. We shall consider it under three headings: (1) The selection of clothing; (2) The preparation of clothing; (3) The care of clothing.

In the first place, I should like to say that if the subject "Clothing" is worthy of a place on the school programme, the teaching must be on as high a plane as that of the other subjects of the curriculum. In our method of teaching, we should have in

view, the mental development of the child. If thought is put on this work, a lesson on a stitch-form may be developed as carefully as a lesson in Arithmetic.

1. *The Selection of Clothing.* Emphasis should be placed on the wise choice of materials and clothing, whether home-made or ready-made. This includes a study of textiles, from the stand-points of use, suitability, durability and cost. In order to select materials intelligently, the girl must have a knowledge of the four principal fibres, cotton, linen, wool and silk. What will aid the teacher in presenting this phase of the work?

Samples of the raw fibres should be shown the class and, if possible, these should be examined under a microscope. Educational exhibits are valuable in illustrating the different steps in the process of manufacture. Flax and wool, in the different stages, may be obtained from our own Ontario mills, while a silk culture cabinet may be purchased from the Belding, Paul, Corticelli Co., Limited, Toronto. Charts, pictures and picture postals are also useful in giving instruction in this branch of the work. As pictures illustrating various processes of production can frequently be found in magazines, the alert teacher will have no difficulty in making a collection. "To be most effective in teaching, these charts, exhibits, pictures, etc., should be kept on open display, only while in actual use and for sufficient time afterwards to allow careful inspection."

The well-known characteristics of each of these fibres can be brought out in class from the girls' previous experiences and this can be supplemented by laboratory work. A few simple tests will help the girl to distinguish the fibres. In public schools, the burning and lye tests may be used, while in high schools, the acid and microscopic tests are desirable.

Excursions may be organized to stores, museums, art galleries and factories if these are available. These, if carefully planned, will give experiences, which combined with class work, are invaluable.

Model looms, made from cardboard, and boxes or wood, are useful in simplifying weaving lessons.

The study of standard materials and the ability to identify them should be encouraged. A collection of these materials should be obtained for class study. It is essential that these be large enough to be easily handled and compared. Strips about nine inches long and the full width of the material, make good samples for teaching. A few should be secured at a time and kept for the following years. Then new ones may be added to the collection each year.

The pupils should be required to make a systematic collection of fabric samples and to mount them in their note books or on textile cards of uniform size. A sample is mounted, one edge being glued to the card and the other edges left free. Opposite the sample is written a full description—its name, width, characteristics, use and price. In doing this work, the child becomes familiar with the fabrics. Textile cards may be purchased from the Department of Education.

Textile study can easily be brought into close correlation with many subjects on the curriculum. Cotton, linen, wool and silk may be intelligently studied in this way, and the co-operation of the grade teachers should be secured.

When considering ready-made and home-made clothing, the teacher should bring several garments to the class and have the pupils compare them as to quality of material, workmanship, durability, simplicity, style and cost. This comparison is easily made after the pupils have had experience in constructing one or more garments and in calculating the cost of the same.

Some lessons should be devoted to the hygiene of clothing. The teacher should emphasize the importance of clothing as a factor in maintaining health. Actual garments may be brought to the class to illustrate the various points.

In teaching pupils how to dress, the example of the teacher cannot be over-estimated. Unless she, herself, dresses in a simple modest and hygienic manner, she cannot hope to influence her pupils in this respect.

2. *The Preparation of Clothing.* This will include the use of patterns, the sewing machine and the fundamental principles in the making of garments. Suppose the project undertaken be the making of a middy blouse: It is wise to have a well-made middy blouse to show the class. It will encourage the pupils to do good

work and they can frequently examine it and thus form ideals of proper technique. Each constructive principle should be taught as the need arises.

In presenting this branch of the work, there is abundant opportunity to use illustrative material as a means of simplifying instruction and saving time. The materials need not be expensive, but in choosing them, the artistic element should not be overlooked. The effect of colour and texture should be considered. In planning for the use of illustrative material, only that which will enrich and strengthen the lesson should be selected, and it should be produced at a time, when it will perform its mission.

The demonstration frame is useful in showing the method of making stitch-forms, but the various types of demonstration cloths are of more value because of their flexibility. Coarse wool and long coarse darning needles are used to demonstrate upon cloth. A generous supply of needles should be threaded. Canvas, unbleached cotton and glass towelling are suitable materials.

Wrapping paper has proved a valuable aid in teaching. Heavy manilla paper makes durable strips upon which to prepare, before the lesson, illustrations of the various stitch-forms. Paper serves many other useful purposes, such as, the teaching of bias strips, folds, hems, French hems, tape, strings, etc.

Cardboard serves a number of purposes. Narrow strips may be cut and used to illustrate the method of marking hems and tucks. It is useful, too, in the teaching, the method of sewing on buttons. Gray cardboard is excellent for all types of mounting charts.

When teaching commercial patterns, use miniature patterns on dark background to show how to place them and how the parts are to go together.

When teaching pupils how to use the sewing machine, remove the thread from the machine and raise the presser foot. Then have pupils practice treadling until an even motion is acquired. Next, have them practice stitching on paper without thread; and again, have them practice straight stitching on striped material. Machine work should always be begun on simple articles which will give practice in straight sewing, such as aprons, bags, pillow cases, etc.

Sewing charts are useful in teaching many of the constructive principles. These may be obtained from the Department of Education.

Some teachers find score cards a useful method of instruction. They are used to criticize the pupils' work and have been found helpful in class room discussions, to outline the standard by which the work is to be judged.

Various exhibits, illustrating the manufacture of buttons, shears, needles, etc., may be secured from manufacturing firms, and will be useful for class study..

3. *The Care of Clothing.* Pupils should be impressed with the necessity of proper care of their clothing. When teaching the mending of garments, the pupils should be required to bring clothing from home, so that they can repair real garments. Good illustrative material should be used to show the correct way to do the thing.

Crinoline is good material for the patching lessons as it creases easily. Plaid tissue paper is useful for the same purpose. The worn spot may be illustrated by coloured crayon, or a spot burned away. The pupils should be required to make and place a patch on paper, and then they should repair the actual garment.

When teaching stocking darning, garments or pieces of materials may be used to illustrate the difference between woven and knitted fabrics. A large piece of knitted material, made of heavy wool, torn away roughly in the centre, is an excellent model for teaching darning; drawings may be used with this to illustrate certain details such as the size and shape of the darn, and the loops on the worn or frayed edges.

In teaching these three phases of clothing, the blackboard marked out in squares should play an important part. It may be used for rapid crude illustrations or more carefully prepared drawings, and for making calculations. To get a class to do more and better work, it is a wise plan to write on the blackboard the amount of work to be accomplished during the period.

A bulletin board is valuable as a medium for the introduction of material which the class may collect. The pupils should be encouraged to bring newspaper or magazine clippings. A reference library, with encyclopædia, dictionary and other reference

books should be a working factor in constant use in all Household Science instruction. Many helpful bulletins are published, while magazines and daily papers are full of material which may be used with discrimination.

An exhibit of work, if it represents the work of the entire class, may be useful, but is of secondary importance. May we who are teachers of this important subject have in view, not a display of garments made during the year, but the true education of the child? May we endeavour, in our teaching, to make her capable, to lead her to think and do for herself?

THE ORIGIN OF THE ROMAN ALPHABET.

BY PROFESSOR A. J. BELL, M.A., Ph.D., VICTORIA COLLEGE.

Our Roman alphabet is one of the oldest of a family of alphabets that arose around the Mediterranean, taking their origin from a common source, which Mr. Flinders Petrie has tried to restore in his book on our alphabet, where he has tried to reconstruct what he terms a hornbook of this alphabet. In many respects it is older than what we know as the Greek alphabet, which was primarily the Eastern Greek alphabet, that of Asiatic Ionia. This was adopted by Athens as its official alphabet in the year 403, B.C., though it had been in common use there long before; for most of the Athenian skilled craftsmen used it in their crafts which were derived from Ioniadēl. The Ionian had taken the letter H for the long E, and with its adoption in Athens the H assumed this force, but in Spartan inscriptions we still find it in the old aspirate use, as in *δαμολια*, the attic *δημσσια*. Probably the transference arose from the loss of the aspirate in Asiatic Ionian, when HE, old ΣΑ, our she, would become simply one vowel sound, *ē*, and would be represented by one letter, and no longer by two; and for this the first letter of the old word was taken. But the Latin alphabet is the Western Greek alphabet, that of the Greeks settled in Neapolis and Cumae, and preserved the old force of H.

Another old letter in the Roman alphabet, that has disappeared from the Greek, is our Q. The oldest Greek alphabet, like the Hebrew and Arabic, had two signs for K: Kappa, written κ, for the palatal form, that before the clear vowels e, and i, and Koppa, written ϣ, before the obscure vowels a, o, and u. Both are preserved in the Roman alphabet; but ϣ now is used only with a following u. Of the two spirants, Sigma, written Σ or σ, and San or Sampi, written π, as a numeral, both the Latin and Greek alphabets have lost the second, and the form of the first in the Greek alphabet is the older, since for the Greek Σ the Latin gives us S, the lower horizontal bar being lost. For the Greek Δ, the Latin gives us a reversed form, V, which seems the later.

The main difference between the Greek and the Latin alphabets is obvious at once to the tyro in Greek letters. The Greek alphabet begins with Alpha written Α. Beta, written Β, Gamma written

I. The Latin agrees for the first two; but its third letter is C, pronounced like K. But it is significant that C is the Latin abbreviation for Gaius; showing that this is the old Latin way of writing Gamma. In Etruscan the Greek Gamma appears as <; and this written with the stilus on wax as an initial, would be C. The Romans' common g confused surds with sonants, as we see from the variants *neclego* and *neglego*; and this form of g has usually taken the place of the old K. Plutarch, in his *Roman Questions*, tells us that Sp. Carvilius, who about 335 B.C., opened the first Grammar School in Rome, invented the letter g. Others refer its invention to Appius Claudius Caecus. Probably what happened was that some Roman of authority, took the sign C for K, but another form of it varied by a bar perpendicular or horizontal as G or *G*, be used for *q*, and set it in the seventh place in the Roman alphabet, from which the Zeta of the Greek alphabet had been dropped. This letter was written as ss by the Romans, as is plain from *comissari* to revel, the Greek *κομίσεσθα*. The Greek *χ* was written in the same way, and disappeared in the same way from its old place before O. Both found their way back in company with Y, the Greek Upsilon, in the last years of the Republic, but when brought back they were at the end of the Roman alphabet.

These changes assume, of course, that the Romans wrote as they pronounced. This is very plain when we follow down the years the spelling of the name Caecilius; in the first half of the second century B.C., we have *Caecilius*; about 150 B.C., we have *Caeicilius*. a little later *Caecilius*, where the *ae* seems to me to have the sound of *e* in our *there*, and with the Christian Era, *Cecilius*, where the *e* is probably our *a* in *care*.

But the presence of h in *sepulchre*, the Latin *sepulcrum*, is the proof of another influence on Latin spelling, the Etruscan, noticed in Catullus LXXXIV. Here he speaks of the pronunciation of a certain Arrius who for *insidias* said *hinsidias*, and for a *commoda*, *chommoda*. So from the second century A.D., the usual spelling is *sepulchrum*. Catullus accounts thus for Arrius' pronunciations:

Credo: Sic mater, sic Liber avunculus eius,

Sic maternus avus dixerat atque avia.

‘Of course: so his mother, so Liber, his maternal uncle, so his maternal grandfather and grandmother had spoken.’ The Etruscans, alone of the people of Italy, reckoned descent by the mother, and not the father; and in Florence to-day the common people, descendents of the Etruscans of Faesulae, pronounce *Casa* as *hasa*, and call the horse races *i horsi dei havalli*.

I believe I added something as to the antiquity of the alphabet represented for us by its Roman form. It seems to have been the oldest alphabet of Egypt, where in the oldest inscriptions we find its letters side by side with the hieroglyphs, brought in, in all probability, by a conquering race from the south. It is the original of the oldest Indian alphabet, as well as of the Hebrew and Phoenician. When we reach China we have a new set of signs, not alphabetic, but adopted by the Japanese, as a syllabary.

*PHONETIC SPELLING IN THE ROMANCE
LANGUAGES.*

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The romance languages are the latest development of the vulgar Latin spoken about two thousand years ago in the various countries of Europe where Latin culture penetrated through the legions, merchants and teachers of Rome, superimposed itself on the native element, and, overcoming easily any barbaric influence, has held sway ever since. The principal are Italian, French, Spanish, Portuguese, Provençal, and Roumanian.

Latin was practically a phonetic language, if by phonetic is meant that, given a series of symbols, the same symbol is always used to represent the same sound and that only. The romance languages, and especially Spanish, have largely inherited this quality. Furthermore, the peoples by whom they are spoken have preserved the extremely valuable tendency characteristic of Latin development and consisting in changing slightly the spelling of words to suit their gradual transformation. For, a language may be compared to a living organism in continuous process of change; and, to insure its phonetic spelling, it must carry a system which automatically, as it were, and as soon as a sufficiently pronounced change has occurred in the development of a word, will suggest a logical change in spelling in conformity with its standard of symbols.

Thus, not long ago, there used to be in Italian considerable hesitation as to the proper spelling of the plural of nouns whose singular ends in *io*. The plural ending for such nouns would normally be *ii*, and for a long time the Italians, who gave the two *is* their full value, were content to write them both out. However, inasmuch as, owing to the old tendency of combining two close and similar vowels into one, the Italians have gradually come to pronounce the two *is* less and less distinctly, may have felt the need of changing the spelling of that ending; and a word like *studio* has appeared in its plural form as *studii*, *studj* or *studi*. They had immediately felt the desire to conform the spelling to

the new pronunciation; but were not quite sure as to what new symbol to adopt. As a matter of fact, they were just a little too anxious; for now the two *is* have practically completed their fusion, and even conservative Italians pronounce and write *studi*, though the *i* is still slightly prolonged as if it were long. This is a natural development and a natural change in spelling. Similarly, the Latin *ti* followed by a vowel and the *ph*, were early replaced by *z* and *f*, respectively, because those changes were within the spirit of the language. It is a normal occurrence in Italian to use combinations of letters to represent new sounds or old sounds in new positions. Thus *gli* followed by a vowel early became the Italian symbol for the liquid *l*; the *c* and the *g*, which are hard before *a*, *o* and *u*, and soft before *e* and *i*, take an *h* before *e* and *i* to indicate that they remain hard, and an *i* before *a*, *o* or *u* to indicate that they are to be pronounced soft. On the other hand, the artificial change that lately some scholars have tried to introduce in words like *perchè*, *poichè*, etc., does not seem to be meeting with favor. The final *e* of such words is close and not open, as the grave accent would indicate to anyone accustomed to the French manner of differentiating between the open and close *e*; and it has been suggested that the said *e* in such words be written with an acute accent. It is an attempt to bring learned influence to bear. But the learning in this case is like the learning of the French philologists of the XVIth century; for, the accent in Italian, when used at all, is not used to indicate the quality of the vowel, but the place where the stress falls, and the desire to indicate the quality of the *e*, is not felt by the great mass of the people. Besides, as experience has continually shown, learned influence in linguistic changes rarely carries that weight that some enthusiastic philologists would have us believe; indeed, unless the change suggested conforms to the spirit of the language, it carries almost none.

There is only one real anomaly in Italian spelling, the use of the double consonant, especially the zed over which the Italians themselves sometimes hesitate. The difficulty arises not, as generally thought, from the fact that the Italians seem to use the zed single or double quite capriciously and inconsistently, but from the fact that the same symbol is used to represent two allied and quite distinct sounds. *Z* is the symbol for *ds* and *ts*; that is, it

may represent a voiced or a voiceless sound; and the Italian language has not yet developed a new symbol to represent either the first or the second. The double zed has never been meant to indicate the voiceless sound *ts*, nor the single zed the voiced sound *ds*; for, the doubling of a consonant in Italian merely indicates a prolongation of the same sound, not a different sound; while words, of course, occur in which you have either a prolonged *ds* or a prolonged *ts* sound. The zed in *zolla*, for instance, is voiced, but is voiceless in *zappa*; it is also short in both cases: whereas, the double zed in *mezzo* is a prolonged *ds*, and a prolonged *ts* in *pizzo*.

Spanish is even more phonetic than Italian, especially since the Spanish Academy introduced a few sensible rules regarding orthography and accentuation, which, conforming fully to the characteristic tendency in the development of Spanish, met immediately with a favorable reception, and have now been generally adopted. The "velar-fricative" sound or vigorous aspirate is now always indicated by the *j* and, before *e* or *i*, also by the *g*; while the *g*, which is hard before *a*, *o* or *u*, takes a *u* before *e* or *i* to preserve its hard sound, and becomes *j* when, as in verbal changes, the "velar" sound is required before an *a* or an *o*. Thus, in the verb *llegar*, the hard sound of the *g* is represented by a *g* in all forms where it is followed by *a* or *o* (pres. ind. *llego*, *llegas*, etc.), but requires a *u* before *e* (pret. first person sing. *llegué*, but *llegaste*, *llegó*, etc.); while in the verb *coger*, the "velar" sound of the *g* is preserved before *a* or *o* by representing it by a *j* (pres. ind. first person sing. *cojo*, but *coges*, *coge*, etc.; and again pres. subj. *coja*, *cojas*, etc.). Similarly, the *k* sound, which before *a*, *o* or *u* is written *c*, and in front of *e* or *i* is written *qu*, and the *th* sound, which before *a*, *o* or *u* is written *z*, and before *e* or *i* is written *c*, interchange their respective symbols whenever, as in verbal changes, an ending beginning with a vowel of the first group gives place to one beginning with a vowel of the second group (*Sacar* gives *saco*, *sacas*, etc. in the present indicative, and *sagué*, but *sacaste*, *sacó*, etc. in the pret.; while *empezar* in the preterite gives *empecé*, but *empezaste*, *empezó*, etc.). Finally, similar changes are, of course, made wherever they suggest themselves. Thus, the plural of *luz* is written *luces*.

As in Italian, the accent in Spanish indicates the place where the stress falls, and not the quality of the vowel. But the method of accentuation has been made more complete and systematic in Spanish than in Italian. The Spaniards have three simple rules which are now generally adhered to. The first is that words ending in a vowel or in the consonants *n* or *s* stress regularly the penult and require no written accent; the second, that words ending in a consonant except *n* or *s* stress regularly the last syllable and take no written accent; and the third, that all words not obeying either of these rules or on which the stress comes more than two syllables from their end, must carry a *written* accent wherever the stress falls. Thus, *libro*, *examen*, *paraguas*, which conform to the first rule bear no written accent; nor do *libertad*, *amar*, which conform to the second; whereas *papá*, *razón*, *interés*, *lápiz*, *telégrafo*, which do not conform to either the first or the second rule, carry the written accent in accordance with the third.

French is not so phonetic as either Spanish or Italian because the method followed in Italy and Spain of combining old symbols to represent new sounds was not at all adequate to meet the requirements of the extremely complicated system of vowel sounds which French has developed. Indeed, French could hardly be called phonetic at all, although fundamentally and to a considerable extent it is. For, like all the Romance languages, French also inherited the general tendency of vulgar Latin to suit the spelling to the new word and its pronunciation; and, after all, a certain combination of letters in a given position does generally represent the same sound, so that the objection which may rightly be raised against a symbol really cannot always be raised against the consistent use of that symbol. It may be argued, for instance, that *ai* is, to say the least, a curious way of representing the open *e*; but if it is known that in a specified position that *ai* always sounds *e* (close), no difficulty will be encountered in reading. The objection is more to the point when it is found that often that same sound has to be represented by a different symbol, as *é* or simple *e*. It is also true that the student may not know when to represent the sound of close *o* by *eau*, *au* or *o*; when to write the sound *eu* or *oeu*, or when *eu* and *oeu* read *o* or *oe*, etc. But, after all, one soon becomes accustomed to this peculiarity and variety of symbols (which are definitely restricted), and the difficulty is not so great as it may seem. The rules for French

pronunciation, though somewhat complicated, are pretty rigid, and involve few exceptions; while the knowledge of the context greatly simplifies the difficulty of spelling.

The great advantage of the Romance languages is their system of syllabification. In the English classes the student is *taught to spell, is made to spell*, with the result that his attention is constantly drawn to the historic form of the symbol and not to the sound that the symbol should represent. In the Romance languages, as in all languages, for that matter, the sound is the governing element in the development of words; but, whereas English is extremely conservative and wishes to preserve the old form of the word, the Romance languages are quite liberal in this respect, and allow, encourage, indeed frequently demand that the sound dictate to the symbol, which is considered purely accidental and subject to the modifications required by the ever-changing sounds. That is to say, in the Romance languages pronunciation comes first, spelling next. In Italy and Spain the student is not made to spell, but to *syllabify*; so much so that Italian and Spanish have not in their vocabularies any word which exactly translates the English word *spelling*. With the attention centered on the sound of a given syllable rather than on the elements of that syllable, the desire for a phonetic representation of it is more keenly felt; and this undoubtedly is the explanation of the fact that in Spanish and in Italian, the changes that have occurred in the pronunciation of words and phrases in the course of their development have been followed *pari passu* by natural and logical changes in spelling. It is a source of great satisfaction. But this system of syllabification, not limited to single words but extended to complete phrases, is useful, moreover, not only because it helps greatly in making and maintaining a language phonetic, but also and especially because of the great practical advantages which result from the use of a flexible medium of expression kept constantly simple. To cite only one, so great an advantage is it to the Italian or Spanish child in the elementary school to be relieved of the spelling-grind and of the difficulties in reading caused by irregularities and inconsistencies in spelling, that in learning his language he advances as far in five years' attendance at school as an equally intelligent English-speaking child does in eight years in learning his language.

ANCIENT ENGLISH AND MODERN CHINESE.

BY JOHN DEARNESS, LONDON NORMAL SCHOOL.

Last week—in its issue of April 3rd—the *New York Times* commenting on a resolution anent spelling adopted by the Modern Language Association, declared that “English spelling is, indeed, the very worst in all the world,—full of inconsistencies and as indefensible on etymological grounds as on those of common sense” “But,” it concludes, “controversy is useless and simplification of English spelling in the future as in the past will be by slow degrees.”

The opprobrium of being, without question or exception, the worst speld language in the world is only recently chargeable to English for on the 23rd of November, 1918, the Chinese Ministry of Education decreed a new spelling with a new alfabet for the monosyllabic language of the Celestial Empire. If the ideographic method of writing Chinese could be called spelling at all, then worse spelling could hardly be imagined. But now that Chinese by one bound has moved from the rear to the front, English is left to bear the unenviable distinction attributed to it by the *Times*.

Oliver Goldsmith. it is whispered, at Dr. Johnson’s prompting, declared:—

“How small of all the ills that human hearts endure
That part which King or laws can cause or cure.”

History shows spelling ills to be an exception to the rule. Official decrees cured such ills of the Spanish language and to a considerable extent the most troublesome of the German ones. The French Academy lopped off some absurdities or irregularities that afflicted French spelling. The defunct Dutch Republics in South Africa reformed the spelling of many of their words to the extent that at least one inspector claimed that the simplicity of the reformed Dutch was worsting English in the schools where both languages were taught. The Central Soviet of Russia set out to make the proletariat of Muscovy a literate people by a thorogoin reform of the alfabet and the spelling.

Where language and nationality determine each other official decrees may be effective in straightening the crooked ways of orthograpy. In English, unfortunately, there is no king or council, senate or academy, possessing the power or the prestige necessary to direct or require the English-speaking peoples to make even the most urgently needed reform in the spelling of any English word. The only attempt ever made in this line, and that not a far-reaching one, was made by an exceptionally strong man occupying at the time the most strategic position in the English-speaking world. The reference is to the late President Roosevelt's effort in August, 1906, to improve the wretched spelling of a limited number of common words by ordering the use of the simpler forms in the documents printed by the public printer and in the official correspondence of the White House. This particular reform was not an innovation conceived in his own mind, but the well considered decision of an association of eminent scholars. Nevertheless, when the political wheel of fortune turned in favor of his critics, they lost no time in scoring a point against him by cancelling the decree. But even tho the decree had been directed to the whole nation, and had been maintained, the United States is only one of a group of English-speaking nations quite independent of each other so far as any spelling injunction is concerned. Accidental improvements of the fashion of spelling English words are likely to occur in the future as they have happened in the past, but the only hope for improvement worth speaking about must come from the persistent propaganda of scholars and reformers here and there who take the trouble to study the subject and have the courage to raise their voices against established fashion. Every advanced student of philology that I know, or of whom I have heard or read, is an advocate of the reform of English spelling. True, there are eminent scholars who are averse to simplifying the spelling of words, but so far as I know their scholarship has never embraced the study of historical English.

The National Education Association of the United States under the stimulating leadership of Commissioner Dr. Harris and a few other notable educators adopted the simplification of a number of clumsily speld common words in their official publications. Our own O. E. A. is hardly so progressive; its executive

hesitated a few years ago to instruct the printing committee to hold to the position to which Dr. Ryerson and the council led us many years ago, although I suppose every member of it knew that "l-a-b-o-r," for example, is a more scholarly spelling than "l-a 'b-o-u-r."

It is not easy to change a spelling habit. Some who are willing to take the trouble fear that their improvements might be mistaken for ignorance. But whether for one reason or another a patriotic scholar adheres to the conventions of the spelling-book in his own practice, he will, if he realizes the important consequences to childhood and the stranger within our gates, wish success to every intelligent attempt to improve our irrational spelling.

At any rate we cannot any longer take satisfaction in "pulling the pig-tail" and while admitting that English is bad, Chinese is incomparably worse. At this distance it looks as tho the new alfabet and the new spelling—the Chu Yin Tzu-Mu—of China are suddenly to make the Chinese a reading people. A writer in the current number of *Asia* states that literacy is making amazing progress among a people who have been ninety-five per cent. illiterate. One missionary says that alert-minded illiterates are taught to read in two weeks and that the system is making amazing progress. The governor of one province has ordered the publication and distribution of two million five hundred thousand copies of the new fonetic primer. Books and magazines are coming into print; newspapers finding large constituencies; the typewriter making its way into Chinese business. Universal compulsory education, where now only five in a hundred can read, becomes a possibility. A nation made almost suddenly literate by the simple decree of a government!

The writer of the article in *Asia* speculates on the consequences of China's becoming the giant nation of the world. The propagandist speaking thru the printing press to the teeming millions of that empire may yet "upset the balance of the world."

To become only moderately expert in reading and writing the 40,000 or more ideographs of the old system took five to ten years of patient application. The ability to read and write has been such a distinction that its possessor has stood higher in the social scale than any position wealth alone could command. In the new

fonetic spelling a Chinese native can learn to read in less than half the time it took most of us to learn to read our primer.

The Chu Yin Tzu-Mu consists of thirty-nine simple characters. These as you see by the chart (here exhibited) have a Chinese appearance and are easily written in the Chinese fashion with a brush held vertically. Thru the kindness of the Rev. Mr. Burwell, a missionary to Western China, I am able to exhibit this chart and to give some explanation of it. The equivalents as printed in Roman letters would lead one to suppose that the alfabet contains fifteen vowels and twenty-nine consonants; the official analysis tells us that it consists of twenty-four initials, twelve finals and three connectors. These can convey all the words in the approved pronunciation of the standard language.

The new writing retains the old arrangement in vertical lines from top downward filling the page from right to left. Page No. 1 will be what we deem the last in the book.

Chinese as spoken in one province is understood with difficulty or not at all in any other province. The ideographs hitherto employed gave no clue to pronunciation; they were worse than English in this respect. Great expectations are built on the unifying effect on pronunciation of the fonetic spelling. The sounds for it are those used in the standard Mandarin and in time it is predicted that the Chinese in different provinces will not only be able generally to write to each other, but also that natives of different provinces will be able to speak to each other.

Human nature in China seems, however, to be not unlike Anglo-Saxon human nature if the report be true that what opposition the new spelling is meeting is coming from the schoolmen and others who have learned to spell in the old way. They cherish it as giving them distinction and regard the new alfabet and the new spelling as something plebeian and common.

THE PHYSICAL LIFE OF THE SCHOOL CHILD.

JOHN NOBLE, M.D., CHAIRMAN, BOARD OF EDUCATION, TORONTO.

There is no such thing as the physical life of the child separate from the mental life. They are inter-dependent; they are one. Happiness promotes health and health promotes happiness. Show me a man who is prospering, who is getting there, and I'll show you a healthy man. On the other hand, show me a man whose business is not prospering, who is slipping back, and I'll show you a man in poor health; he can't eat; he can't sleep; he can't laugh—only a withering plant.

"But what has this to do with children?" you ask. They have no business to worry about. Haven't they? The child that has no business is either ill, or is feeble-minded. A little girl has her dolls to dress and undress and lay in their carriages and take out for an airing. If she has the material and the dolls and the carriage, she is prosperous; her business is a success. If a boy has the material to make his boat, his kite, or his sleigh and makes them, and his boat sails and his kite flies and his sleigh does not break down, he is prosperous and happy and healthy.

I believe a great deal of the ill-health of school children is due to the fact that they are put at work that they cannot make a success of. Their business is not a success in school. They feel it. It reacts on the body and lowers the vitality. I recall one case where a very brilliant little girl of nine was urged on by her parents and her teachers to such an extent that she used to sit up in bed at night and scream and cry out "I can't get the answer!" I ordered her to go and play for thirty days, and I sincerely wished that I had had the power to send her parents and teachers to jail for the same length of time. Give a child only such work as he can do, then see that he does it successfully. Success brings satisfaction, self-esteem, contentment, happiness and health. Dairymen have contests as regards their milch cows. The cow that gives the most milk or the most butter in a given period is the winner, and the dairymen tell us that to get the best yield, the cow must be kept contented and happy. Poultrymen have similar contests as to egg yield, and they too say that the hen must be

happy and satisfied. What is true of the brute creation is true of the child. If you want to get the best educational results, keep the pupils contented, happy, care-free, and at the same time make them feel that they are doing things, getting somewhere.

A teacher's professional education should enable her to distinguish normal from abnormal conditions of mind and body. She should know where the thinking brain is and where the driving brain is; and be able to judge fairly well from the pupil's physiognomy what may reasonably be expected of him mentally. Such knowledge on the part of the teacher in a public school would be of vastly more importance than, say, a knowledge of higher algebra.

Again, why should not the teacher be able to discover the physical ailments of pupils to some extent? For example, she sees a child wrinkling the upper half of his face out of shape every time he looks at the black board. She knows there is something wrong with his eyes and they should be attended to. Here is a little girl who persists in putting one arm over the back of her chair. She, in all probability, has spinal trouble. If a child's voice is wrong, the teacher should know that there is a blocking in the air passages. The teacher should be familiar with the first appearance of ordinary skin diseases—measles, scarlatina, scabies, chicken-pox, etc. If a pupil complains of sore throat or toothache, why should the teacher not examine those parts and advise the child to get medical or dental aid? Diagnosis is not part of a nurse's training. She has to learn it after she is appointed as school nurse. The teacher with a few talks from the school doctor, would know as much of diagnosis as the nurse, and would have much greater opportunities of observing, as she is with the children all the school time, whereas the nurse comes only at stated periods.

Suppose our teachers were all trained along this line. Then when a teacher thinks a child should see the doctor, let her give the pupils a card. When the doctor and nurse arrive, the nurse presses a button and a bell rings in the class-room and those pupils, if any, having cards go to the Medical Inspection room. This would avoid the disturbance and loss of time caused by the nurse coming in, lining up the pupils and taking a hurried glance at their teeth and throats and calling that an inspection.

I wish to emphasize the foregoing because if we are to stop the spread of contagious diseases, we must catch them in the early stages. As the disease progresses, it becomes more contagious.

Each school should have a weigh scale with a measuring apparatus attached. Then have each pupil weigh himself and measure his own height and keep a record of the same and report to the teacher each month his gain or loss. If a child is not gaining or is losing, he should have medical attention at once, as that is one of the early symptoms of incipient tuberculosis. Children should also be requested to keep a record of their chest measurements and their biceps and calf measurements. This would direct their attention to their physiques and cause them to take a pride in their physical developments.

Teachers, during their professional training, should have a full course on the lighting, heating and ventilation of schools. These things are vital to the health of the children and the health of the children should be the teacher's chief care, first, last and always.

Light should come from the left to all right handed persons. If the room is twenty-four feet wide, the top of the window should be at least twelve feet from the floor. The bottom of the window should not be lower than the top of the pupils' table. Blackboards, of course, should not glitter. It was in vogue some years ago to have one side of the class-room practically all one window. The sash had to be of metal to withstand the strain of wind. In hot weather the frame warped; and it did not lend itself to ventilation. A centre pivot pane had to be used and it proved unsatisfactory. If the sun falls direct upon the window, thin white or nearly white blinds should be used. These should be capable of being lowered from the top as well as raised from the bottom. The window should be so placed that the child can see out of doors. There is just enough of the "wild man from Borneo" in his young soul to make him love to see out if he can't be out. Make the class-room as little like a prison as possible. Double windows are an invention of the evil one in the interest of the undertaker. You can have too much light in a room; it is light, not heat, that prostrates the white man in tropical climates. That is why the negro

is black. The rays of light cannot penetrate to his nervous system. An earthworm's nervous system is immediately beneath its skin and that is why it remains underground during the day and comes up at night. Class-rooms should be tinted to take the sharp edge off the light, so to speak. When we are out of doors in summer, the greenness of vegetable life protects our eyes. In winter we are not so protected and we know what happens. Class-rooms should never be artificially lighted for day classes and we should have no night classes. No animal, brute or human, should be asked to work both day and night. If darkness comes too early, begin an hour earlier.

Or why should we not have December and January for holidays instead of July and August? By passing cold water through the radiators in summer, we could keep the class-rooms as cool as desirable with almost no extra cost. Gardening should be taught in connection with every school, both rural and urban. By our present arrangement of holidays, two of the best months in the year are given over in school gardens to the production of weeds.

Now we come to the two great problems that affect child health more than any others—heating and ventilation. Hot air should never be used to heat a building unless we should take a notion to pass it through radiators the same as we do hot water and steam. Why not? It wouldn't freeze.

If we use air to heat a room, we superheat the air, that is, we must drive all moisture out of it and burn it. This dry, burnt air is most injurious to the health of any person, but more especially to that of children. It irritates the air passages and is one of the chief causes of adenoids, enlarged tonsils and lung trouble.

Steam or water should be used to heat buildings. Neither has any advantages over the other from a health standpoint. If radiators are made too hot, the air surrounding the coils becomes superheated and burnt, much the same as when air is used for heating. This is true, more especially, if the air in the room is not circulating. This could be readily overcome by having a jet of air, drawn from some other part of the room, blowing upon each coil of the radiators. This plan would save fully one-third of the fuel now required. Ninety per cent. or more of all human habitations are too hot during the winter season. If we would only

accustom ourselves to a temperature of sixty degrees Fahrenheit or thereabouts, we would greatly reduce the incomes of doctors, druggists and undertakers, and add much to our longevity; besides, we can do more work with less fatigue in a cool room.

Ventilation is of greater importance from a health standpoint than any other proposition we have to deal with, more especially in schools, because our class-rooms are too small and our classes too large. We eat solid food three or four times a day, and liquid food much oftener; and then we imagine that that is all the food we require. It is a mistake. Solids and liquids together only make up about half of our nourishment. The other half we get from the air which we breathe. We take this air-food not three or four, or even ten times per day; but we take it from eighteen to twenty-five times per minute—from four hundred to six hundred times per day; and we keep this up from the moment of our birth until the moment of our death, asleep or wake, it is all the same. We are all very particular about what we eat and what we drink, but we breathe any old air that comes along, so long as it does not choke us. Each time we inhale, we are taking oxygen away from the air and putting it into our blood; and each time we exhale, we are throwing out waste matter from our bodies into the air.

Now, let us suppose a class-room with forty pupils in it. Children breathe more frequently than adults—each not less than twenty-five times per minute. It is plain that the air in the breathing line in a class-room is being deprived of oxygen by one thousand inhalations and poisoned by one thousand exhalations each minute. If the air in the room is not moving, the pupils may be breathing vitiated air while pockets of unused pure air may be standing in each corner, or near the ceiling or near the floor; hence the necessity of keeping the air moving in a class-room. I believe a couple of wagging fans placed in each room would solve the whole ventilation problem. This would use up evenly all the air in the room, then we could open the doors and windows and get a fresh supply. This plan has not been tried in class-rooms, so far as I know, but we see it every day in banks, dining halls, and other business places. The Direct Window Ventilation, with or without an exhaust, is the latest and best up-to-date method.

But, before going further with ventilation, let me call your attention to school architecture.

The three storey school with a basement four feet below the ground is doomed. No up-to-date Boards of Education, either in Canada or the United States, are contemplating the erection of such to-day. The best, the cheapest, the safest, the most sanitary school is the one-storey school, without basement, without halls, as such, and without stairways. The elimination of these, together with lighter construction, cuts the cost nearly in half. Why should children be compelled to tramp up and down three or four flights of stairways five or six times daily? It may not injure the strong, but it is injurious to the weak, the very young, the crippled and diseased, and we have these to some extent in every school.

The one storey is erected as follows: Build two parallel sound-proof walls, twenty-four, or more feet apart, and one storey and a half high and roof it over. The half storey above is for lighting purposes only. The one-storey rooms are built on either side. This enclosed space serves as a hall, a gymnasium, an auditorium and a play place during inclement weather and also as an assembly room. There is a doorway from each class-room into this play place, also one on the other side into the outdoors. There is absolutely no danger to the children from fire, as all class-rooms can be emptied in less than thirty seconds—no stairways, no class waiting for another class to get out of its way. Of course, this play space can be made in the shape of a cross, and thus give a more compact school. The heating plant is outside the school entirely. The lavatories are inside and lighted by skylights. This style of school has been in use in Cleveland for some time and is giving perfect satisfaction to both teachers and taxpayers.

In Toronto at present we have two two-storey schools under construction. They have no basements and no plenum systems. The steam heating plants and the lavatories are outside, the former partly below ground to secure returns by gravity, while the latter are immediately over the former and are properly heated and lighted and have a separate exhaust fan.

The ventilation of class-rooms is direct through the windows with an exhaust system driven by electric power and placed near the roof. Steam driven fans are useless when the heating plant is not in use.

The plenum system is obsolete and unsanitary. We have been using it in most of our Toronto schools for years. It has proved worse than useless. It draws in sand, leaves, straw and other undesirable substances and, most deadly of all, fine black dust. This lodges in the conduits and in some cases we have found them almost choked with it. It costs fifty per cent. more to install a heating plant with the plenum system than without it, and it costs fifty per cent. more for coal to run it. Therefore, in the interest of the health of the children and in the interest of the taxpayer, we should abandon it at once.

Food.

The brute creation know by instinct what to eat and what to drink and when to eat and when to drink, and they take it just as nature has prepared it—raw. Man is the only animal that requires his food to be cooked. In other words, man's existence depends on his brains; his intelligence directs him in the selection and preparation of his food. Before the child's intelligence is sufficiently developed, adults decide for him, and adults too often decide matters to suit their own convenience rather than the child's welfare. Infants are fed six or eight times daily; older ones less frequently. Adults, as a rule, eat three times a day. But, for a growing school child, is three times a day often enough? In down-town districts the family have breakfast not later than seven o'clock. By the time the pupil gets home at noon it is twelve-thirty—five hours and a half. That is too long for young children to be without food. I believe there should be a cafeteria in every school. It should be run by the pupils and teachers at no expense to the Board other than giving a kitchenette and lunch room.

CLASS-ROOM PERIODS.

Long class-room periods are bad in every respect, but more especially as regards the pupils' health. A period lasting from nine till a quarter to eleven is simply torture. The Humane Society should interfere.

Thirty minutes of mental work is ample for younger pupils. This may be graded up to one hour for older ones. This thing of High School pupils going in at nine and remaining till two

with a half-hour interval in which to bolt a lunch is very injurious to the health of students at that most critical period in their existence—the teens.

It is lack of bodily exercise that injures the health of the child. Our present plan of educating a pupil through his brain for six hours a days is all wrong. The Minister of Education should compel all school boards to give at least as much time to educating the pupil through his muscular system as through his brain system. Then we would turn out a generation of strong, healthy producers instead of a generation of physically unfit non-producers. This country to-day needs, is crying out for, a generation of healthy, intelligent producers. It is no wonder that most of the out-of-door healthy physical labour is done by foreigners when we do our best in our schools to raise up a generation of idling invalids.

One of the most health producing and one of the most useful amusements that any person can indulge in is swimming. There should be a swimming pool in every school. It should be on the surface, not below the ground, and it should be well lighted. I will guarantee that any school having a swimming pool will not require an attendance officer.

It is monotony that kills, that grinds us down. If pupils were allowed a change from brain work to muscle work, or vice versa, at the end of each period, and if there were a proper gymnasium in each school, then present long recesses could be dispensed with and short lavatory recesses given by each teacher could be substituted.

I have spoken of the gymnasium and of the swimming pool. These are for physical amusement and physical development. There is another room just as essential as either of these. It is the auditorium. It is for mental amusement and inspiration—music, theatricals, concerts, dialogues, debates, moving pictures, etc. These things lift the pupils up, gladden their young souls, make their cheeks glow and their eyes dance with joy and delight.

In conclusion, let me say that the first duty of every teacher should be to keep pupils happy, contented, healthy; then take a leaf out of their book and follow their example.

HEALTH EDUCATION IN RURAL SCHOOLS.

MISS JEAN E. BROWNE, DIRECTOR OF SCHOOL HYGIENE,
PROVINCE OF SASKATCHEWAN.

The term Health Education is in itself rather significant, indicating as it does the trend of modern opinion. A few years ago in speaking of health work in the schools, one heard only the term "Medical Inspection." Medical Inspection had its inception in 1879 in Paris, and meant inspection of school children for contagious diseases. Shortly afterwards it was introduced into Germany and in 1891 we find its beginning in London, England. We find it first in the U. S. A. in the City of Boston in 1894. In 1902, the first school nurse in the United States worked out a very successful experiment in New York City. In 1909, this same nurse, then Miss Lina Rogers, organized a system of Medical Inspection in Toronto, Winnipeg followed in 1910 and Regina in 1911. It is hard to fix the exact date, but about the beginning of the 20th century medical inspection of schools which before had for its object the reduction of contagious diseases began to take on a broader meaning and a systematic beginning was made in examining children for physical defects such as defective vision, defective hearing, enlarged tonsils, adenoids, decaying teeth, etc.

But those who were making a study of child welfare soon began to see that inspection work alone would never get us very much farther ahead, and gradually there came to be evolved out of the old idea of Medical Inspection the idea of Health Education. It includes as one of its phases at the present time the inspection of children for physical defects, but it aims at something infinitely bigger and better—physical perfection. Its aim is the prevention of defects, the removal of which occupied the whole time of the old systems. In a system of Health Education, the self-activity of the child is our starting point. In the old systems of Medical Inspection this well-proven pedagogical principle was scarcely considered. The principle on which Health Education is based, is the essential principle underlying all education, that is, that the child is an entity, that there is no sharp line of demarcation between the mind and body, and that education means the development of the whole child.

When teachers grasp this fundamental idea, there will be no lack of harmony in connection with health work in the schools. It is largely a matter of getting rid of the old pernicious tradition that a child can be divided into three separate compartments distinctly labelled "physical, mental and spiritual." When we think of the child as a whole, we can then plan for the development of the whole child. It seems to be due to a lack of understanding of this that our teachers have been devoting themselves exclusively to the education of children's minds, while another set of professional people were attempting to look after these children's bodies.

If we accept the principle that the child is an entity, then the public will scarcely be justified in dividing the care of a child between two great organizations, thus presumably dividing him and handing over his mind to a Department of Education and his body to a Department of Public Health. This method has, I think, been adopted because of its seeming expediency. Some of these expedients have given such good results in certain parts of this continent as to constitute them "noble errors," but errors they still are if they regard the school as a means to an end; for our schools by virtue of the divine right of the children which they have in ward, are themselves the end of all the wise constructive efforts of this age. The school will make use of all the other agencies which it can, whether religious, civic or health. But naturally the question arises here as to the home and church. Many children, both rich and poor, have no home and no church, but all in this country have the school.

To be sure if we still regard health work in the schools merely as inspection for physical defects and contagious diseases, then it might just as well be assumed by health departments. This work in my estimation is of an emergency nature, and the necessity for it will diminish in direct proportion as health education flourishes. We must get better acquainted in this twentieth century with the Greek ideal of physical perfection even if we cannot go all the way with Plato when he says "But where can you find a more signal proof that a low and vicious education prevails in a state, than in the fact that first rate physicians and jurymen are in request" and Plato goes on to say: "Do you not hold it disgraceful

to require medical aid, unless it be for a wound or an attack of illness incidental to the time of year—to require it, I mean, owing to our laziness and the life we lead, and to get ourselves so stuffed with humors as to cause the clever sons of Asclepius to call diseases by such names as flatulence and catarrh.” Plato’s Republic containing as it does the elements of educational reform for the present day, might well be our guide in health education.

The principles of health education are the same whether in rural or urban schools, but the necessity for the rural work is greater. In Ontario, I understand that forty-seven per cent. of school children are in the rural and village schools. In Saskatchewan seventy-seven per cent. of our school population is rural so that our problem is overwhelmingly rural. In considering this work, we must also bear in mind the fact that the health standard in rural communities is generally lower than in cities. This has been proven over and over again by surveys taken for the purpose in various parts of the United States. There are few, if any, organized health activities in rural communities, so that if the school shirks its responsibility the outlook is dismal indeed.

Permit me to outline for you how this problem is being met in Saskatchewan. In April, 1917, the Minister of Education, who is also the Premier of the Province, appointed a Director of School Hygiene to organize a provincial School Hygiene Branch. In connection with this branch there is a gradually increasing staff of specially trained school nurses, most of them with pedagogical training. At present this work is financed entirely by the Government, and the unit of operation is for the most part the inspectorate. The school nurse travels with the inspector in fine weather in his car, and conducts her inspection work at the same time as the school inspector. This works out without any waste of time for either. Its disadvantage is that it allows the school nurse very little, if any, time to visit parents. In winter time, she inspects schools in towns and villages along railway lines. Ultimately this work will have to be undertaken and financed locally, but under our present form of administration, the small school district with its school board of three members, this is an impossibility. We are still hoping for the larger unit of school administration, whether it be the municipality or a still larger

unit. In the meantime a considerable number of municipal councils are interesting themselves in this work. At their request we send one of our School Hygiene staff, and the council arranges and finances her transportation from school to school within the municipality.

The one-room rural school is the pivot round which our system chiefly revolves. Out of 4,453 school districts, about 4,372 are one-room rural schools. The school nurses take part in all activities connected with them, such as school fairs, teachers' conventions, and various other local clubs.

The prime aim of this School Hygiene Branch is to get health habits fixed in children while at the impressionable age. This requires in the teacher not only a good working knowledge of pedagogy, but also of practical Hygiene. So we conduct courses of lectures and demonstrations in the Normal Schools. This year for the first time a school nurse with pedagogical training has been added to the staff of our two Normal Schools at Regina and Saskatoon. Her function is to teach teachers-in-training how to conserve the health of their pupils. She lectures in Physiology, Practical School Hygiene, First Aid and Home Nursing. She examines the students for physical defects and exercises a general supervision in regard to their health. Next year we hope that both these nurses will be able to add work in Physical Culture to their present course.

Last summer for the first time a course in Health Education for teachers at the University Summer School was conducted. This consisted of Physiology, School Hygiene and Physical Culture. At conventions this propaganda is constantly being brought to the attention of the teacher.

I believe that a wise course of study in Hygiene taught by teachers who are impressed with the importance of this work is our greatest single instrument in Health Education. Last year for the first time, Hygiene was made a compulsory subject, in our province, from the time the child enters the elementary school until the end of the third year of the secondary school. During the first two years, however, there is no formal teaching of Hygiene. It is a matter entirely of fixing right health habits in the pupils. Now, it would be ideal if our teachers were so widely read and so

well informed as not to require text books at all, but at the present time, much depends on the selection of texts. We use a graded series of text books by Ritchie published by the World Book Company.

For Grades III and IV—Primer of Hygiene.

For Grades V and VI—Primer of Sanitation.

For Grades VII and VIII—Primer of Physiology.

FIRST YEAR SECONDARY SCHOOLS.

Text—The Saskatchewan Public Health Act—Regulations and Bulletins.

Bulletins issued by the National Commission of Conservation. Such topics as the following are dealt with:—

1. How a supply of pure water may be obtained in the locality in which you live. Conservation of rain water.

2. Pure Food Laws.

Regulations governing the sale of milk for domestic use.

The part played by flies in the pollution of food.

3. Contagious Diseases.

Typhoid Fever, Tuberculosis, Measles, German Measles.

Whooping Cough, Influenza, Chicken Pox, Small Pox.

Scarlet Fever, Diphtheria, Mumps, Trachoma.

Characteristic features of each and mode of transmission.

Regulations for isolation and quarantine.

4. Union hospitals—how organized.

SECOND YEAR.

Text—Human Physiology—Ritchie.

Chapters I to XIII inclusive.

THIRD YEAR.

Text—Human Physiology—Ritchie.

Chapters XIV to XXVI inclusive.

Through teaching of this sort we are building up self-constituted health corps among the older boys and girls. Not long ago a group of High School girls on the playgrounds of a small town school discovered that one of the number had a rash. They went inside and consulted a pasteboard card showing the symptoms, period of incubation and period of isolation of each of the common contagious diseases. One of these cards hangs on the walls of every classroom in the province. After consulting the card, the girls decided that their class-mate had chicken pox. She asked permission to go home. The family physician was called in and corroborated the diagnosis. In a prospectus sent out by the World Book Company, it is stated, that four children after reading the Primer of Hygiene discovered for themselves that they had adenoids and insisted on their parents taking them to the family physician. In educational work of any kind, our greatest asset is the self-activity of the child, and we shall make a sorry failure of Health Education if we do not make use of this principle.

A valuable factor in Health Education is the Little Mothers' Classes in which adolescent girls are taught by school nurses the care of babies and some simple home-nursing. In this connection I have in mind a young Roumanian girl, who had never taken any interest in school work. She was not feeble-minded by any means, but seemed to lack motive. It was very gratifying to see that the work of the Little Mothers' classes seemed to fan the spark of intelligence into abundant life. Life took on a different meaning to Annie. Soon she became the school nurse's star assistant. In a demonstration of this work put on in a large auditorium before a crowded audience, Annie played the leading role, bathing and dressing the baby, a very live one at that. The audience cheered enthusiastically at the end of her skilful performance. Think what that applause meant to the little new Canadian girl. That little girl worked a complete transformation in her own home, and more than that, she became an amateur community nurse.

But it is worse than folly to attempt to teach health in a school that breaks all the laws of hygiene. Children are very quick to detect inconsistencies in grown-ups. Our present and very pressing duty then is to put right with as little delay as possible the hygiene conditions of our schools. The first definite piece of work

undertaken by the School Hygiene Branch was to send out a questionnaire dealing with hygienic conditions to all the rural and village schools in the province. A bulletin was then prepared based on the replies to this questionnaire. I submitted this to the Deputy Minister for publication, but it looked almost too bad to print. However, after inserting the following paragraph it was finally printed:

“In regarding this survey as a whole we find that it offers immense opportunities for improvement. On the other hand, it compares favourably with conditions as revealed by surveys which have been conducted in the United States. It is altogether probable that it would compare not unfavourably at least with conditions existing in other provinces in Canada, but to the writer's knowledge, no such survey has been conducted elsewhere in the Dominion.”

During the three years that have elapsed since this bulletin was prepared, conditions in regard to lighting, heating, ventilating, water supply, washing facilities, general cleanliness, school toilets and desks and seats have been on the whole greatly improved. Our method of attacking the problem was to issue pamphlets on the most neglected phases of School Hygiene, and to conduct school hygiene exhibits at trustees' conventions. But our most effective means has been the work of the nurses on the Provincial School Hygiene staff. Besides inspecting the pupils in our schools, these nurses make detailed reports on the hygienic conditions of the schools. They send in definite recommendations to the school boards to report a little later what has actually been done. In cases of continued neglect, the school inspector recommends a discontinuance of the Government grant until the most urgent improvements are made.

I do not think that this phase of health work can be overestimated since it spells prevention. As a people we are still more concerned in the treatment of disease than in its prevention. How ready a response meets the appeal for the immediate needs of a tuberculous child, but how loath we are to spend money that will prevent hundreds of children from developing the disease. We cannot afford to economize on the hygienic conditions of our schools. I remember about six years ago being home on a vacation

in my home town in Ontario just after there had been an inspection of the pupils. There had been a clinic in connection with this work, and a number of children had been operated on for tonsils and adenoids, and a number of them had had glasses fitted. All of which was excellent. I marvelled, however, that nothing had been done to improve the school, and I asked if I might see the report that was made to the school board regarding the hygienic conditions of the school. But no such report had been made. And so the old school was left to keep on breeding unhealthful conditions. I think I must take a moment to describe it. It was an old four-roomed frame building situated on grounds inadequate in size and so low as to be covered with mud except in dry weather. In summer, the grounds were covered with dank weeds. Two of the rooms were lighted on opposite sides of the room, and in all four the amount of window space was grossly inadequate. Two of them had only north light. The seats were all stationary and double at that. The blackboards were shiny, and opaque window blinds were used! No means were provided for the pupils to wash their hands. Drinking water was supplied in an open pail, beside which rested that old criminal the common drinking cup. The floors were dirty and the rooms dusty, but worst of all were the outside toilets. They were really too offensive for me to describe to you. I have related this to illustrate how short-sighted has been some of the so-called health work carried on in schools.

At the present time, however, the need of inspection for physical defects is great. Our school nurses find throughout our province that eighty-eight per cent. of the pupils inspected have physical defects mostly of a remediable nature. One of our greatest difficulties in this connection is the scarcity of dentists in the smaller towns. Although we did not expect intensive results since our work is spread over such large areas, still we find that 2,295 rural children had defects remedied last year as the result of notifications sent home by our school nurses. But in undertaking any such work there always remains a considerable number of children whose parents are not able to pay for treatment. The Junior Red Cross in our province has now stepped into the breach and is undertaking the treatment of such children.

Important as inspection work is we must always remember that our aim is Health Education. We believe that there lies ahead of us a golden day when because of the education of all the people, there will be no need of sanatoriums. I have been told that this school work could have no relation to Infant Welfare and pre-natal work. I am not so sure. When girls are taught in school the intelligent care of their own very wonderful bodies and the sacredness of human life, they will not rush into motherhood lightly. There is no end of literature on the care of infants and on pre-natal work, but the difficulty is that expectant mothers do not realize the need of securing it. A good deal of what is distributed finds its way into a waste paper basket. Medical science can do no good in a general way until the people begin to appropriate it themselves. And it is at this point that the Health Education work of our schools bridges the gap.

The cure of all the troubles of this restless world is education and as a part of that great panacea we claim a forward place for Health Education. When this work is firmly established we shall see a glimpse of what St. John saw in the Revelation—"And I saw a new heaven, and a new earth."

SOCIAL PROBLEMS AMONGST THE FEEBLE-MINDED.

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Although insanity has been recognized for many centuries it is only of recent years that the problem of the Mental Defective has come into prominence.

Formerly although the lower grades of Mental Defect were understood, the idiots and imbeciles—the Moron—or high grade defective passed practically unnoticed—The latter class, it has been shown, are the most dangerous, from an economic social standpoint. From the ranks of the Moron group many of the criminals, paupers and prostitutes are drawn. Their feeble mental capacity does not enable them to use good judgment, reasoning or to look ahead into the future and provide for themselves in a satisfactory manner. Consequently a tremendous number, when thrown on their own resources, through this lack of judgment and foresight—sooner or later become public charges.

In recent surveys carried on in widely scattered centres throughout the United States and Canada, it has been found that 2.7 to 3 per cent. of the population are of this Moron type.

In such cases where the defect is noticed early and suitable training along industrial lines instituted in place of that along intellectual lines these higher grades may be made self-supporting. It is, however, in comparatively few places, at the present time any action along the line of special training is being taken.

Another serious aspect of the subject is that surveys show that only fifty per cent. of the Morons found are native born. The remainder we import from other countries.

Immigration coming to Canada brings us all classes of people, a certain and quite large proportion of whom choose a new home here for the reason they cannot make a living in their own country, and their repeated failures lead them to believe tales of easily gained wealth in a new land. Thus, coming in with the better types, we get a flood of undesirables who join the great shifting population cropping up wherever conditions require the employment of a large amount of unskilled labour.

Of this foreign born stream of immigrants you find a big majority settling in the older districts of the large cities—the downtown or slum districts—where they find cheaper accommodation—two or three families crowding into one house—and a large number of congenial companions of their own type and nationality. Those of the higher variety soon move out of these crowded quarters, but the others remain through lack of ambition and their own shiftlessness. You do not find them frequently in the newer portions of the city, which so often originate as shack towns, because here the desire for advancement exists with a willingness to put up with present hardships, that they may attain better things later. The condition of shack town is one of steady progression—frame, cement or brick houses gradually replacing the original rough structure—starting with the first stage of adding one room, then a verandah and so on till the supreme touch of owning a Ford is attained.

Although mental defectives are found in this background it is rather an exception and is not nearly so common as in the poorer sections. In these crowded parts the children are more than apt to run the streets and this is one of their first steps towards juvenile delinquency.

Perhaps, it would be as well to cite a few concrete examples of how we have received undesirables from other countries and how in a comparatively short period they have become public charges, costing the taxpayers an enormous amount. A young woman, who had had anything but an enviable career in the slums of London, a drunken immoral existence which ended in her finally spending three years in a Home for Inebriates, was shipped to Canada. I asked her why she wanted to come to this country—she said the superintendent had asked if she would like to work in Canada, and supposing it was a small town near London, she had been quite pleased with the idea. After her arrival in Canada she was sent to Cobourg as a domestic and upon receiving her first wages, promptly got drunk and was arrested. Her employer, a judge, took her back, only to have the performance repeated again, so she was finally shipped to Toronto, where she drifted from one job to another for several months until, as she explained, they were taking the census of Toronto and she was taken up with it, being sent to the Jail for six months. Just what the census was she had no

idea. From the Jail she was transferred to the Haven from which place she was tried out in various situations, but was invariably returned to them. Soon after she became violently insane and was taken to the Hospital for Insane. She has been an inmate ever since—a cheerful happy irresponsible soul with the mentality of a child of seven and quite insane, though no longer violently so. She works faithfully as best she can and everybody who knows Alice loves her, but all the same she has been an expensive importation.

The Jukes family will probably interest you in showing what one defective couple can cost the country in cash and crime. This family is well known through the States and Canada and, although it is but one family that has been traced through its branches, it is not an exceptional one, and there are doubtless fifty-seven varieties of others with histories just as bad, whose depredations have helped empty our national pocket-book. Starting with the original defective and his wife, who settled in Connecticut, the Jukes family has been followed through five generations to the number of 717 descendants—of these 612 or eighty-five per cent. have been paupers, criminals, prostitutes, insane or other types of public charges—the remaining 105 have been self-maintaining but of a low standard of living. This couple up to the present time has cost their adopted country over one million dollars it has been estimated.

With the introduction of better and more strictly enforced immigration laws, with less hurried and superficial examinations at the port of arrival things like these will naturally be less frequent and will, we trust, eventually be impossible, especially with the advent of carefully trained medical experts whose appointments are not merely passing political events. Often sentiment is allowed to play a large part in the admission of undesirables. For instance, a man comes to Canada and later sends back for his family which joyfully hastens to join him. It is found that one or even more members are defective or otherwise incapable of caring for themselves, and despite the assurances of the distracted family that the feeble member will always be cared for, what guarantee can we have that this will be done or what is to prevent these weaklings being allowed to marry and produce even more feeble types? Is it better to have this one good settler with one or more defective children in his family or is it wiser to refuse the whole outfit?

The mental defective of the unstable type having anti-social tendencies forms such a large and complicated problem it would be quite impossible to go into it in detail in a brief paper like mine.

Through the nature of his defect he is not interested in the ordinary school routine, so it is not surprising that, often at an early age, he becomes converted into a chronic truant. A truant is sure to find plenty of mischief to get into and for one who has little or no sense of right or wrong, it is but a step to the Juvenile Court. One appearance is the fore-runner of others and one finds a surprisingly large percentage of the repeaters both in the Juvenile and other courts are mental defectives. This is being recognized more and more in the Juvenile Court and made a basis for the disposal of the cases, but as yet we have not been able to bring the administrators of justice in the other courts to the same enlightened state.

In quite a number of schools there is apt to be a gang whose demoralizing influence is only too well known to anyone unfortunate enough to come in contact with its workings; in other schools the handiwork of the gang is barely recognizable. In practically all the gangs, which have come under our notice these past few months we have been working in the Toronto Public Schools, there have been one or more defectives—in one case the leader was a high grade Moron of a bad type—six out of fourteen boys with him also were defectives and all had been in court at least once. This leader had no less than eleven separate charges laid against him, but as he was too young to be committed to an Industrial School and his parents refused to let him be sent to the Hospital for Feeble-minded at Orillia, he was set free on probation under the Big Brothers. Here he is a confirmed criminal, immoral and with absolutely no sense of judgment—it is only a matter of time until he appears again in court in spite of any supervision that can be given him and he is corrupting any boys he comes in contact with. All parents fortunately do not take such a selfish and short-sighted stand and more frequently than not, realize that their child is below normal and are only too willing to accept suggestions that will help them out of present difficulties and guard against future troubles. So much can be done for these handicapped children if parents will only co-operate. Where we find there is little or no

co-operation from the family it is not unusual to learn the real trouble, is, that one or other of the parents is of such a low type mentally and physically that they are incapable of recognizing the child's defect, let alone coping with the situation. *A visit to such a home is heart breaking for it reveals conditions conducive to anything but family harmony—there is dirt, poverty, with no comforts or privacy, overcrowding, the food is likely to be insufficient and very often there is not enough clothing to supply all the children—naturally there is no discipline attempted in this home. With such a background it is readily seen there is no inducement for growing boys and girls to remain home for their pleasures. Home being merely a necessary place where one sleeps in a crowded bed and eats scanty ill-prepared food amid howling children and quarrelling parents. Consequently the street becomes their resort and the unstable weakling lacking any training, having no judgment and always following the line of the least resistance, has very little chance.*

Now what can be done for these handicapped children—for children they always remain—in order to save them and to make them into self-respecting and useful members of society? For those whose backwardness is due in a great measure to poor physical conditions and lack of proper food, we are hoping for great things from the nutritional clinics, hot school-lunches and, of course, the correction of physical defects. *These children with the individual training possible in small ungraded classes and with their improved physical condition, soon demonstrate the benefit of such things. For the real defective, the establishment of industrial classes is gradually being accomplished, and in every case they have rapidly and in a convincing manner shown of what inestimable value they are. The removal of these children from the regular class-room has been a boon to their former teachers. They tell me that since the introduction of industrial classes in the Vancouver School, the word "truant" is fast becoming obsolete.*

In these classes where the child is carefully observed, he is given things to do, suited to his limited capacities and which appeal to him, therefore great is his pride in his work and he eagerly looks for the praise which is forthcoming. For him school soon ceases to be an irksome duty and becomes a joy. For those

who have become too unruly or have already developed anti-social traits, a farm colony is the only solution. Here under careful supervision the child is given outdoor work that will keep him interested and incidentally help him to work off his superfluous energy; he is away from the temptations of the street, amusements suited to his mentality are generously supplied, good wholesome and attractively served food is given him and he will have plenty of healthy sports to teach him to always play the game fair and square. Practically all this must be accomplished through the channel of his affections, a sympathetic understanding of his limitations and not through fear.

Big strides are being made in all the large business concerns since they have realized the importance of looking after the health and morals of their employees and they are, in ever increasing numbers, obtaining the services of specially trained nurses or other social workers. These become the advisor and frequently the confidant of the young employee and where once conditions, often appalling, existed, things are steadily improving and the influence for good the workers can exert is extraordinary. Many a one is safely guided past a dangerous spot, supported through some trying crisis and kept in the straight path. A thorough understanding of physical and mental limitations of some discouraged employee often makes their transfer to a suitable, congenial task, not only possible but profitable.

GLADSTONE AND DISRAELI.

PRINCIPAL HUTTON, LL.D., UNIVERSITY COLLEGE.

A member of the United States Senate is reported to have said the other day "I'd rather be a dog and bay the moon than Senator of such a Senate." Perhaps the indifference to, and the distrust of, politicians generally, at this moment is so generally widespread that most readers did not wait to confine his words to the United States Senate, but felt inclined to apply them sweepingly to members of all the legislatures. That feeling appears to be common on this continent and in France, and is by no means unknown in Great Britain.

Why then, such people at least will feel, a paper on two politicians least of all why a paper on two politicians dead and buried for thirty or forty years? Politicians take short views, are compelled by democratic politics to take short views; they cater for the man in the street whose views are necessarily very short; they live then for the moment, and when they are dead what interest can attach to them? As one of my two heroes—the witty one, of course, the literary one, and, I will add, the philosophic one, said in another connection, these two men are not only dead, with the issues of their time, but damned. Why disturb them in their already uncomfortable retreat?

But the fact is I find them extremely interesting; much more interesting than the bulk of living politicians. For one thing, democracy had not made in their days the stride it has made since and views were not so short in politics, as they are to-day; much longer and more philosophic; and one of these two men at least had very large and long views, tending to be so large and long as to become dreamy and to confuse and puzzle and confound his countrymen. They always thought him a sphinx and a mystic. *Punch*, the best national paper, always drew him in the character of an Asian mystery; and he certainly gave grounds to *Punch's* cartoonists for this quality in his cartoons. In the second place, they are interesting because one of them at any rate is the signal instance of that rarest of phenomena, the literary man succeeding in politics, in spite of the failures of most literary men in Parlia-

ment; of Burke, the greatest of them all who largely failed; in spite of John Morley and Mr. Birrell and Mr. Lecky, Disraeli succeeded, and succeeded better than Mr. Balfour who comes next. And in the third place they are of interest because they so curiously contrast with each other, and represent so well not merely opposed persons, which is nothing, but opposite types, which is everything; which in fact is the best justification of the old traditional divisions of parties in our Empire into Liberals and Conservatives, representing the two opposite types. Of course, even when the two parties are opposed, the members of the two very often do not represent opposing types, but belong to their parties rather by accident or force of circumstances, of personal interest, for example, rather than inherently, by force of temperament. But Disraeli and Gladstone represented a real opposition of temperament; none the less that they changed places and each ended by representing the party which he had at first opposed; in fact, all the more on that account. Their very changes illustrate the difference of temperament. Disraeli, who was very human, began life like all the rest of us, as a Liberal; the generous inexperience of youth made him one; the sobering effect of thought and years and experience converted him. Gladstone, on the other hand is one of the rare instances of a man whose youth was passed in doctrinaire and inherited conservatism, who gradually passed, as his mind opened and reflected, to more and more radical views, and who without ceasing to be doctrinaire, ended where other men begin, a doctrinaire radical. It is not a normal or a very human progression, but it is all the more curious and interesting.

And finally, I chose these two men because one of them, Gladstone, became the very idol of masses of his countrymen, especially of the middle class. We middle class people were brought up, like Mr. Lloyd George's father, to think Mr. Gladstone a sort of saint and hero; very good for us no doubt; very bad for Mr. Gladstone; fatal in fact; but all very interesting. And even Disraeli, though never so popular, became the object of another and curious cult, perhaps mis-named, and the eponymous figure-head of the so-called Primrose League. Some of you will remember this story. When he was dead the Queen sent some primroses with the legend of "his favourite flower," and the Primrose League in honour of Disraeli was promptly started. But it is not

impossible that the good Queen was thinking, as Disraeli, only twenty-four hours earlier, according to another picturesque legend, believed her to be thinking, not of him, much as she liked him, but of the husband of her youth; and sent the flowers as her *husband's* favourites.

This legend says that as he lay a-dying a messenger arrived from the Queen and his arrival was reported at the bedside. The guttering candle flamed up for a moment in its socket—"Ah," he whispered feebly, "it is only a message for Albert!" In those little words lies the charm of the man; the dash of flippancy, the spice of disrespect, but underneath both the abiding, ironic humour which made him so human, and the sure appreciation of his sovereign's feminine character, which forbade him to think first of himself, even in that hour, and assured him that her first thoughts were also elsewhere; and if there was aught else in his words I shall assume in them his wistful, whimsical, ironical humanism—"shall I be able to take a message to Albert?"—he was wondering—shall I ever see Albert or anyone or—anything again?" No wonder the Queen sent the messenger; Disraeli was so human; so considerate of women and so tactful to them. He knew how to conciliate women, from his elderly wife—many years older than himself—to his elderly sovereign. He flattered them with the most impudent and extravagant of flattery after he knew they liked it and would swallow it. "I administer flattery," he said, "to all men; to most men in a spoon, to royalty with a ladle." "As I grow old, your Majesty"—says another legend—"as life falls away from me I cease to care for books. I read only the Bible, and Shakespeare and—your journal on the Highlands." Could any woman, at least could any Queen, resist a courtier like that? No wonder the Queen came to be devoted to him, though all her early prejudices were with the Whigs. No wonder she preferred him to Mr. Gladstone, that terribly intense and serious person, who talked to her, as she complained, in the finest stroke of humour that has been recorded of her intimate conversations, "as though she were a public meeting." What sense, what humour, nay what humanity remains with a statesman, who addresses a woman and his sovereign, and a solitary widow, as though she were a public meeting, as though she were the Young Liberals or the Eighty Club? How could the Queen forgive Mr. Glad-

stone? She would have been herself inhuman had she not complained of such inhumanity in her Premier. There lay the weak spot, the weakest spot almost in that great man; he had not a spark, not a scintilla of humour. Professor Malcolm Wallace tells me a delicious anecdote under this head. "I should like to die in church," said the intense, ecclesiastical Mr. Gladstone, "but so as not to disturb the congregation." No one can define the word prig, but such an anecdote illustrates this quality. It was this quality which caught his countrymen. *Punch* always drew Mr. Gladstone as a sort of serious and solemn Don Quixote; *Punch* once drew a cartoon of the two men glancing at each other's books; "hum! flippant," says Mr. Gladstone as he turns the pages of Lothair—"ha! prosy," says Disraeli, as he opens *Juventus Mundi*.

It is extraordinarily unfair—that judgment of *Punch*—but it accurately represents the weakness of England; a flippant man though he be a real author and a thinker and a philosopher cannot carry weight in England; he is too light. The pedant and the doctrinaire and the prig may carry weight, with only half the thought and the reading and philosophy, of the other; just because he is a pedant and a solemn humbug and is never light. Many of you know the story of the Academy Dinner.

Disraeli dined at the Royal Academy; Browning was there. In conversation with Browning and others Disraeli remarked that the quality which struck him about the pictures was their poverty of imagination. Then he got up to speak. "What strikes me about these pictures," he said, "is the quality of their imagination." Browning was taken aback and ventured a few days after to ask the Premier how he reconciled his remarks. "Oh, Mr. Browning," said Disraeli, "you poets are so literal." That is one anecdote characteristic of Disraeli's flippancy and humbug, but the sequel is worse—for Mr. Gladstone. At *his* breakfast table some time later Browning repeated the story, as an amusing illustration of the Premier's humbug. "You call that amusing, Browning," said the host, "I call it damnable." That story is so damnatory in fact—for Mr. Gladstone—that his devoted friend Canon McColl persuaded himself, that the story was the other way round, and that it was Browning who found the humbug damnable and Mr. Gladstone who found it amusing. But the other guests stuck to the version I have given you; and on the face of it, it bears

the signs of authenticity, while the McColl version bears only the suggestion of an amazing feat of self-deception worthy of Gladstone himself.

For each man was a humbug, but Disraeli the delightful humbug whose humbug is humorous and extravagant for humour's sake; almost open avowed humbug, just an experiment in fact on the vanity and credulity of women or artists or humanity at large; but the other man's humbug was that dangerous humbug which we practice not to amuse ourselves or others, but to deceive ourselves and to make ourselves believe what we want to believe, because we will not read ourselves aright. Gladstone's humbug was intellectual dishonesty; Disraeli's was only the humorous mockery of human vanity, like his compliment on the Queen's book; or his mockery of democratic electioneering. "I appeal" (he said once) before an election (apparently not having much of a platform just then) "to the sublime instincts of an ancient people." Or again, he voted against Irish coercion in 1844 or thereabouts, and took up the anti-Popery cry in 1846, frankly as a piece of party tactics, having no real scruples about the coercion of Ireland and no real indignation against Papal aggression (on which Mr. Gladstone would write tedious reams of magazine articles). This may have been, and this was, moral dishonesty or just politics; but intellectual dishonesty is a more serious thing; and a more serious charge, and should not be lightly made even against a politician. I will take two illustrations. Mr. Gladstone in opposition took the part of the Boers in the South African War which preceded the Battle of Majuba. Having reached office by his opposition to the Government he dropped the Boers and went on with the war; but the battle following and the war becoming more difficult, he dropped the war and surrendered to President Kruger. But not as a surrender; far from it; he announced that he had made a "magnanimous" peace. There is an old scoff as old as the pages of Thucydides about the statesman who shirks his duties to his country and calls it magnanimity. I think it applied here. I am sure no Boer believed in the magnanimity; I am sure it sowed the seeds of the later Boer War. And what right, finally, has a man to be magnanimous with his country's interests? Magnanimity is like all virtues, a private virtue; it cannot be

practised by a nation unless a whole nation deliberately votes to forego a war which it can win, in order to spare a weaker nation.

And here is the second illustration. Mr. Gladstone was engaged in a deadly combat with Parnell, with whom, however, he was carrying on intimate negotiations through Mrs. O'Shea. Then the divorce suit came and the non-conformist conscience sprang to arms in England and the Roman Catholic conscience in Ireland, and an opportunity offered of playing to the gallery of these two churches, and unhorsing Mr. Parnell by means of his private offences; and the man who had worked through Mrs. O'Shea, who must have known all along Mrs. O'Shea's relations with Parnell, overthrew Parnell by the help of the private scandal of a divorce suit. Now it is a healthy public instinct, no doubt, which punishes a statesman like Mirabeau or Sir Charles Dilke for private excesses, healthy for the public; but it is a mean and dishonourable and disgraceful thing for a statesman, who has overlooked all the private scandal, to use a public scandal to get rid of an opponent; only the ecclesiastical conscience would do it; and Mr. Gladstone had an ecclesiastical conscience; he did the things that suited him; he made himself believe them to be right, anything and everything he wanted to believe right, as he made even his friends believe right most of the things he wanted them so to believe. That also it may be said is very human so to impose on ourselves; but it is less human, less loveable, more unpardonable, than flippancy and cynicism and the rough honesty, which never pretends to superfine virtues, which never takes itself very seriously, but is at least intellectually honest with itself. Mr. Gladstone never seems to have weighed carefully the scriptural suggestion "that we deceive ourselves and the truth is not in us;" and worst of all, perhaps, after feats of ecclesiastical morality such as these, he could go home and write a magazine article on the sense of sin; that was too bad. He had better have imported a little more of that sense into his unscrupulous magnanimity and his unscrupulous exploitation for political purposes of the seventh commandment. That is the sort of humbug which is better termed hypocrisy and it is the worse and the deadlier hypocrisy because it is subtle enough to deceive not merely the public—that is comparatively a small matter—but the hypocrite himself. There is its sting and its poison. "Mr. Gladstone"—said Labouchere once—"would always have an ace up his sleeve and believe that Providence placed it there."

Punch once drew a picture of the two men meeting privately in the absence of the public whom each humbugged, like two Roman haruspices meeting privately to laugh over their exploitation of popular superstitions. Disraeli is drawn laughing, but Mr. Gladstone says stiffly—"I see nothing to laugh at." The cynical humour, the cynical honesty of his rival was beyond him. So he too became to many of his countrymen—like his rival—something of a mystery, and they called him a "Jesuit" while they called his rival a sphinx; but the sphinx is only a symbol of silence and inscrutability, not of intellectual dishonesty. Intellectual dishonesty is, what Plato calls the lie spiritual, the lie in the soul; or in New Testament language the sin against the Holy Ghost (perhaps). And so for half a dozen reasons I am on the side of Disraeli. That a Jew by origin and a middle class Jew should govern the gentlemen and the noblemen of England is in itself alone an amazing witness to his powers of mind and will. He never concealed his Jewish origin; how could he? But he never even made light of it; he gloried in it; he defended the emancipation of the Jews on the far-reaching even exaggerated plea that but for the Jews, the Atonement for the sins of the world would have been impossible, as well as on the safer plea that the Christian Church was founded by Jews, that Christianity is the fulfilment not the destruction of the Old Testament; that every apostle and evangelist was born of Jews; and the founder Himself of a Jewess. He was not, of course, himself a Jew; though some of his colleagues sometimes fancied so; the furthest step he took was a stroke of flippant humour in the boy, the anticipation of much flippant humour in the man. When he was at a little private school, he and the other Anglican boys had always to trudge a long way home after the service and missed a hot dinner. Dizzy suggested to the other boys that they become Unitarians for the duration of the term. But his real appreciation of Unitarianism was far different and more philosophic, though equally characteristic. "Unitarianism and Utilitarianism," he once remarked, "suffer from the same weakness, there is no imagination in those systems of philosophy and religion; but imagination governs the world."

Disraeli then was a Jew by origin and proud of his origin, yet he led the aristocrats of England against Mr. Gladstone who was an unimpeachable Englishman, even though before an election he

contrived, in turns, to masquerade—if convenient—as a Welshman or a Scot. Some one once published a map—before an election—showing the seven cities where Mr. Gladstone (like Homer) (before an election) had been born. I prefer Disraeli's humbug about *his* birth; he tried to think that his ancestors were great Spanish Jews of the great days of Venice; he was not constructing family trees for election purposes, but for spiritual purposes, to please his Eastern imagination; his taste for the gorgeous.

To pass to other matters. Disraeli as a good Conservative was always pricking the fashionable bubbles of the day; this also has helped to endear him to the academic mind. Clergymen were just beginning then to scold at their creeds and to kick against the pricks of the thirty-nine articles. Dean Stanley dilated on "the forty stripes save one" with which he had been beaten. Disraeli listened and then with an ejaculation burst the bubble; "no dogma no Dean," he said oracularly. Could any answer be better as well as briefer? Again people were beginning to scoff at the Devil and even to suggest that there is no such person. Disraeli countered with the remark that there is no argument for the personality of God which is not as good for the personality of the Devil. That also is a good retort. If it does not solve the mystery, it amplifies and widens it which is the next best thing to do when the thing itself is insoluble. Again, people were beginning to disbelieve in the Book of Genesis and to believe in Darwin. Disraeli went—in a velveteen coat and soft hat—to a church congress in Oxford and addressed the assembled ecclesiastics: "the question to-day is whether man is an ape or an angel; I am on the side of the angels." What could be better? His philosophy told him that the problem is insoluble; that one can only take sides; his instinct told him the right side.

Some persons no doubt call that answer flippant; of course, it was flippant, but if philosophy can be flippant and yet remain philosophical so much the better for philosophy and so many the more numerous will be its readers—though they be few at the best.

Again, Disraeli attracts me by his private life. "The most interesting thing about a man"—said Carlyle—"is his religion"; no doubt, but the next is his private life and I like what I read of

Disraeli's. To begin with, he was the literary man, the bookworm, the dreamer always, true to his origin; born of a bookworm and an essayist and a humanist; brought up in an essayist's library and passing hours and even days in the moody silence of the student. Though he was a premier and a country squire and a magistrate, he was also the man of literature, with his limitations and his deficiencies. "I hunted once," he wrote in one of his novels, "it was not very disagreeable; I have occasionally gone out shooting, it is not too stupid." It reminds me of an anecdote of one of my friends. He joined a very gifted fishing party in the Highlands. All the fishermen were great conversationalists and wits. "It was a splendid time," he said, "it would have been perfect, but for the damned fishing." I have a suspicion too that in spite of Dizzy's glowing compliments to his wife about her ability in running a large house, the *ménage*, also like the master, was sometimes rather literary than efficient. There is a story that Bernal Osborne dining with him after he had been discomfited by cold soup, lukewarm fish, and a congealing roast, found himself facing some ice pudding which was *mutatis mutandis* equally open to criticism—"ah! well! come Dizzy"—he said cheerfully "here at last is something warm." Even the dinners then were sometimes very literary, for all the wife's attempts to make amends for a literary husband. And then the wife herself makes Dizzy loveable. No woman has ever given a husband so glorious, so glowing and withal so frank and unblushing a testimonial—worthy of the humour and cynicism and irony of the husband himself—"Dizzy is so kind," she said, "he is more like a friend than a husband." What other husband ever earned praise higher than this? Mr. Gladstone, for example? Mr. Gladstone I have no doubt was a kind and faithful husband. I take no stock in the monstrous scandals that reputable people even used to tell and believe of his private life. These are merely part of the stock in trade of public gossip against all premiers and prominent men. I have heard them repeated even of our homely Premiers of Ontario, of whom also they are just as true and just as false as of Mr. Gladstone. They are merely the creations of the malignant credulity and nasty imagination in which human jealousy seems to revel. But to return to Mrs. Disraeli's tribute to her husband. Had Mrs. Gladstone occasion to say anything so convincing and so delightful in form and substance? I have

never heard of it; but I have heard of her saying in the latter years of the old man's life, to her guests before dinner; "Mr. Gladstone must not be contradicted." There you see is the nemesis of popularity and idolatry. The old man's head had been so turned by middle class idolatry that he could not suffer contradiction, even in his own house and at his own table, where the rest of us suffer contradiction daily, and some of us even gaily, and could dispense with it only at great cost, both to happiness and character. The old man in fact with his terrible intenseness could brook at last apparently neither disagreement nor even jesting. After one of his foolish speeches, for example, about "the spirit and the power of caste" as he phrased it, against upper class opinion and the opinion of the educated—you know he was always quoting the text of St. Paul about "not many learned, not many wise after the flesh, etc., accepting Christianity" and inferring thence that it did not matter to him though the learned and the wise after the flesh rejected Mr. Gladstone—one of his friends, a former supporter, said to him, introducing an eminent barrister, "allow me to present my brother-in-law, though he be a barrister and represent the spirit and the power of caste." Mr. Gladstone frowned; he could not take even that mild and good-natured gibe even from a friend and admirer and a quondam worshipper.

I will take Ireland next as an illustration of the contrast between the two types, and I will take it not to talk politics so much as to illustrate types. Disraeli, thinker, student, dreamy, even to melancholy and often to silence, was familiar with the insoluble problems of the world, from Ireland at the foot up to the insoluble problem of life itself. So he said little about this problem, except to remark that Great Britain might be torn to pieces to no effect or to effects of no account, if she recklessly and impatiently dug up the foundations of peace in Ireland, if she tampered with the painful union, which had at least introduced no new grievances and was slowly removing the grievances which preceded, in order to see how the roots of peace were growing. Mr. Gladstone's leader—Peel—had proposed a grant of money to the Roman Catholic College of Maynooth, where conditions were very primitive and the students very uncomfortable, to improve the student's comfort. And, of course, it excited the Protestant horse; in a moment—in the phrase of our local wit, the old war-

horse was in the saddle again—Disraeli's dry comment was "The Honourable gentleman is convulsing the kingdom, in order that the students of Maynooth may sleep three in a bed instead of four." Flippant as usual, cynical, humorous; none the less searching and philosophical; more searching and more philosophical to-day, in the light of all Mr. Gladstone's vain attempts to please Catholic Ireland, than it seemed in the '40's when applied to Mr. Gladstone's leader and predecessor, Peel. The results of later tinkering and pottering over the insoluble Irish problem have not been generally as trivial and tolerable, as that multiplication of beds and diminution of bed-fellows, but neither have they been more re-assuring.

Physicians are familiar with running sores, which run and run and run, but never kill the patient; it sometimes seems a pity that politicians have not studied medicine.

Look at the case of Mr. Gladstone, a characteristic politician, a believer in legislation and in law-making; he had worked thirty years at benefitting Ireland; little good had followed; continual disorder had resulted; and then? Why then, like an old man in a hurry, like a quack with his panacea of legislation, he hung over the whole of the slow and painful labours of the past eighty-five years, and because he had not altered in one generation, the legacy of 300 years or 3,000 years (I might as well say) of blundering and wrong-doing, or just of mutual incompatibility, because in thirty brief years he had not reconciled the most quick-witted, logical, self-conscious and self-centred, censorious, neurasthenic and querulous race upon the earth—the Mrs. Caudle of the British Empire—the people who find their natural expression in their characteristic men of letters, in the savage misanthropy of Swift and the captious criticism of Shaw, because he had not reconciled such a race in so short a term to their partnership with a very illogical, unselfconscious, easy-going and unthinking partner outnumbering them by many millions of voters, and therefore sometimes imposing his tactless will upon them, though always trying to be tactful, why then, he threw up the sponge, he surrendered at discretion, he gave way to the Nationalists, to the politicians who appealed to the heart of Great Britain because they represented the British love of compromise, but who do not appear to appeal or to have even ever truly appealed to the two real and natural parties in Ireland, the Sinn Fein and the Unionists. But no such Hobson's choice need ever have been forced again on that

unhappy island probably, if the Grand Old Man had been a little more of a philosopher or a great deal more of an historian, or a better student of his Bible. If instead of dwelling so much upon the wicked "learned" and the unprofitable "wise after the flesh" who would not listen to St. Paul or St. Gladstone, he had pondered a little on the other text "that a thousand years are but as a watch in the night" in the sight of God and in the course of human history and in the slow and painful ameliorations of incompatible temperaments and ill-mated nations.

But Mr. Gladstone was an unprofitable student; he never read what he ought to have read and he read what he ought not to have read and there was little intellectual health in him. He studied Homer and made a hobby of Chinese pottery—to the edification of no one but himself, not even of the classical scholars who could never take his Homeric vapourings seriously; possibly to the edification of a few Chinese pottery collectors. But he did not read Irish history, as Disraeli did, and as he, too, as a British statesman was bound to do. He seems even to have been astonished to learn—when he surrendered to the Home Rulers—that the Union had been carried by corruption, as though corruption were not inherent in all governments, Parliamentary and democratic governments not less than others, as though corruption were not inherent in human nature. So he rushed in where angels might have feared to tread; and turned—what Mr. Bagehot called his second-rate mind and first-rate energy—a mind and energy already diluted by the finding of mares-nests in Homer and other trivialities in Chinese ceramics, to the solution of the most insoluble of political problems. Is it any wonder that he left it farther from solution than ever, and more desperate? Is it any wonder we are suffering to-day from his recklessness?

Mind, I am not saying that he surrendered for the sake of votes, as unfriendly critics like Mr. Goldwin Smith used to say. I am quite aware that he did not; he asked for a large British majority for Home Rule, just that he might be free from that suspicion; he surrendered because he was sanguine, ignorant, light-minded and doctrinaire, and because he believed that a majority opinion must never be rejected and that the principle of self-determination, as it is called, is the final principle in government; he was a pedant like the American President, who has made

a fetish of the same principle; as though majorities were final and permanent and unable to learn better—as though quality counted as nothing in this world as against quantity; as though geography and history were of no account against national feeling; and yet the very men who supported him and made him a power for mischief are not prepared to follow him to the logical conclusion of his doctrine, and to defy geography and history. And so the Irish question remains more formidable than ever, for want of a little patience, a little firmness, and a little more faith in the necessities of history and geography. What is the force of the Gladstonian argument that no hostility and incompatibility can continue if only self-determination be granted? As well say that husband and wife will never again be incompatible, when the wife has received an equal vote and self-determination; separation we all know is in such a case sometimes the only remedy; but separation *with* alimony is an easier solution for an incompatible couple than for two incompatible peoples; yet that has not seldom seemed to be the Irish demand; it is very Irish; separation with alimony.

And in this country I think we have another grievance against Mr. Gladstone, that he started all the loose and frivolous talk about Dominion Home Rule for Ireland; as though there were any analogy between our relations to Great Britain and Ireland's relations. We are a separate nation to all practical purposes, remaining in the Empire deliberately because sentiment bids us remain, but free to depart with a blessing to-morrow. Ireland has no such sentiment and wants to depart, blessing or no blessing. But the practical necessities of history and geography which have no application to our separation, forbid hers. In short, the two cases have absolutely nothing in common, neither in the matter of national sentiment nor in the field of natural necessities. And to talk of an analogy is merely mischievous nonsense and unscientific moonshine. Tow Ireland, that is Roman Catholic Ireland, to the coasts of the United States, and no one will object (unless, perhaps the United States; those loud-voiced, but disingenuous friends of Ireland). As science cannot yet perform that towing feat, what can a **sober man do but** protest that the Union has divided Ireland least; divided her least from herself and least from the predominant partner, and hope that gradually

in time it will produce a single mixed race and preserve for the islands which geography has joined (with only twelve miles of sea between them in places) the chance of fusing these two types, types the very opposite and the complement of each other, and holding between them a singularly well-rounded and happily composite humanity, equal to any nation in the world; but no; Mr. Gladstone was incapable of such long views and with a light heart, like the mad French Minister making war on Prussia in 1870, he turned his back upon the painful labours and the slow parturition of centuries, to start an illogical British compromise for a logical Irish people.

The two men interest me for many other reasons. There are so many paradoxes about them. If there be anything well established in history it is that Foreign Politics have latterly, at least, been the strength of the Conservative Party, and domestic politics of the Liberals, as is indeed an ancient truism. A democracy, said the Greek democrat, cannot hold together an Empire; it is not interested in the Empire, only in its domestic bread and butter questions; and yet, I think, Mr. Gladstone's Foreign Politics sometimes compare favourably with Lord Beaconsfield's, notably in relation to Russia and Turkey. No one takes very seriously to-day Mr. Gladstone's championship of Bulgaria. Even in his own days the Liberal journalists sent out to report in Bulgaria's favour, Mr. Archibald Forbes and Mr. Bennet Burleigh, soon saw reason to draw unflattering pictures of his protegee. And in the Great War Bulgaria has proved that she can equal the Turk in atrocity, without the compensation of that occasional magnanimity and sportsmanship which has now and then redeemed the Turk in the eyes of British soldiers, and which spared some of them some of the horrors of war in Gallipoli. But that is only a detail. On the broader question few men defend the Tory policy, of maintaining the Turk in Europe. It has become to-day only a desperate *pis aller* adopted most reluctantly in deference to a youthful Secretary of State for India, whose policy is to yield everything to Indian feeling, and to supposed Moslem clamour. Possibly Lord Beaconsfield with his Oriental and Jewish origin had a personal predilection for the Turk and the young Turk or the Jews of Salonica, the Turk's twin brothers. More probably he argued that the Turk was a gentleman; as he

sometimes is to brave and illiterate races like our own. But then he is incurably beastly and brutal to clever literary races like the Greeks and the Armenians. And so the Conservative leader went wrong and the Liberal leader right.

But there are other reasons which draw an academic mind to Disraeli. Mr. Gladstone wrote very tedious books and studied tedious hobbies and was always intense and earnest and cock-sure and popular and ready to write magazine articles about the Pope and Vaticanism; and subjects equally popular, but unprofitable and unscientific and unreal; having no vitality in them, no meaning even for the mass of thinking men; out of date, mediæval, belated. But he never originated a speech, a sentence, a phrase even which will live; he had neither depth of thought nor imaginative command of language; his mind was cheap, popular, commonplace, second-rate, to refer to Mr. Bagehot's verdict again. His reading was of the same kind. He magnified very greatly the value of Butler's "Analogy," of "Robert Elsmere," of some novel now forgotten, by a Mr. Shorthouse. But Disraeli could really think and speak and write. Many of his speeches contain passages which are literature; an amazing record for a busy politician. He was worthy of the ancient House of Commons of the 18th century, when eloquence flowed and style was understood and the classics quoted. There is an often quoted passage about Sir Robert Peel and the gentlemen of England, who used to follow him and whom he was once proud to lead.

"I remember him making his Protection speeches. They were the best speeches I ever heard: it was a great thing to hear the right honourable gentleman say 'I had rather be the leader of the gentlemen of England than possess the confidence of sovereigns.' That was a grand thing. We don't hear much of the gentlemen of England now. But what of that? They have the pleasures of memory, the luxury of reminiscence; and they were his first love. And though he may not kneel to them now as in the hour of passion, still they can recall the past and nothing is more useless or unwise than these scenes of recrimination and reproach. For we know that in all those cases where the beloved object has ceased to charm it is vain to appeal to the feelings. You know that this is true. Almost every man has gone through it. My honourable friends reproach, the right honourable gentleman;

the right honourable gentleman does what he can to keep them quiet; he sometimes takes refuge in arrogant silence and sometimes he treats them with haughty frigidity; and if they knew anything of human nature they would take the hint and shut their mouths; but they won't. And what happens then? The right honourable gentleman being compelled to interfere sends down his valet; who says in his genteel manner "we can have no whining here."

Or again—he is speaking still to the House of Commons—of the landed interests—of the farmers and the country gentlemen—"Although you may for a moment flourish after their destruction, although your ports may be filled with shipping, your factories smoke on every plain, and your forges flame in every city, I see no reason why you should form an exception to that which the page of history has mournfully recorded; why you *too* should not fade like the Tyrian dye and moulder like the Venetian palaces."

There is another passage which I have not found time to exhume about the great Gladstonian Ministry of all the talents, one of the ministries of the seventies; the ministry of Cardwell, Lowe, Childers and Ayrton; who seemed able to accomplish everything but somehow exhausted themselves without accomplishing much. Disraeli compared them to the exhausted volcanoes of Southern seas; the words—I quote from memory—ran something like this: "The Treasury Bench reminds me of scenes described by travellers in Southern climes; they pass along a silent coast where rise towering, but extinct volcanoes; there is neither thunder nor fire nor any sort of smoke; no movement in the oily sea; only ever and anon a subterranean muttering and an uneasy stirring of the surface water." His novels equally—though very unequal and sometimes unintelligible for their Asiatic mysticism and bombast—contain satire and comedy, sufficient to establish the reputation of a man of letters, who had given his life to literature, and far more than sufficient to dignify and transfigure the busy statesman, with whom letters came to be only an avocation: a parergon.

Much can be forgiven to a statesman who will give us literature; how many do? How many have ever done? How many ever will do? Disraeli endears himself also (I have suggested as

much already), because he is human, while Gladstone was only popular; with all the limitations of a cheap and easy popularity; with all the transitoriness and vanity of popularity. He was obsessed with his own day and its interests, even with its outworn and merely inherited interests and its dead issues; such issues were still popular, because appealing to the masses of half-educated and uneducated people who are necessarily behind their times. They can be set forth with advantage in magazine articles, long after they have ceased to be a part of the spirit of the age, long after they have been discarded by educated men and women. And I think this happened to Mr. Gladstone; his Vatican articles—though infinitely more popular—were not more philosophic or scientific than his vagaries about Homer. He started as a mediævalist and he never quite freed himself from those limitations.

“But the old Jew”—to quote Bismarck in a sense Bismarck did not intend—“meant business;” which I shall interpret to mean, that Disraeli had thought and read deeply, was a student of life; lived in an atmosphere as old as that of his ancestor Job and as new as that of the last born child; an atmosphere which is as old as human nature and as eternal; which belongs to no country but to all, and is the staple food of thought for all men who think, wherever and whenever born; which is never out of date, because it is never merely transient and popular and never is taken up with the catch-words of the hour, the cat-calls of the passing moment. There is the difference between the popular and the human; popular thoughts are about things visible, accidental, transient, but the thought which is human rather than popular is about the things that are eternal: about the problems that do not pass; that are the same yesterday, to-day and forever, that continue while sun and moon endure; over which the old man lingers yet, towards which the latest newborn child will in due season inevitably turn.

Mr. Gladstone's popularity suggests the question of the conditions and limitations of popularity. It was said of Voltaire “Il a plus que personne l'esprit que tout le monde a.” I have heard it said of Mr. Gladstone that he gave back in steam to his audience what he had taken in vapour from them. That is a definition of one sort of popularity; the popular orator is a sounding board, a background, which gives back to the populace its own cries multiplied and dignified by echoes. It is a good definition

of Mr. Lloyd George's oratory, not quite so good of Mr. Gladstone's. He was more independent of his populace, more apt to lead as well as follow; not so apt to say after Ledru Rollin "*Je suis leur chef, je dois les suivre.*" Mr. Gladstone both led and followed public opinion; but even so popularity is not a criterion of excellence. Popular instincts, prejudices and sympathies may be in the main sound and true; (popular instincts, not scientific thought, established Christianity as Mr. Gladstone was never tired of arguing); but they can be misled as well as led; as we all have seen to our cost during the Great War; they are as harsh and cruel and ungenerous as they are noble and generous and merciful. It depends on the magician who evokes them; and so far Gladstones can do more harm and more good than Georges just because they are more active and more independent of their populace, less of a mere echo and repercussion of it; less of a mere bell-man.

Mr. Gladstone was not a mere echo and bell-man, but he was always very near popular opinion; hence his power and his weakness, his power for the moment, his weakness now. He expressed the moment's opinion; the mood of the bank clerk, of the small bank manager, of the small manufacturer, of the middle classes; he did not express the thoughts of the historians, of the great men of science, of the best scholars or the best theologians; "a second-rate mind of first-rate energy." Furthermore, he was a born partisan and party politician. He loved that battle of party politics which first fascinates, then seduces and at last depraves the mind. It is not necessary to be in politics to see this. Any man who has sat in a deliberative assembly, even in academic assemblies which do not divide normally on party lines, but occasionally do so, can see this for himself, even as a member of those cold-blooded and scientific bodies.

Mr. Gladstone should have gone into the army; there he would have learned to fight with his arms and his intelligence, instead of with his tongue and his intellect, and he would have learned to see the limitations and the dangers of parliamentary fighting for its own sake. He would have learned how vain it is to appraise the progress and spiritual growth of a nation, by the enumeration of statutes passed and laws successfully voted. I suppose we may count the youthful doctrinaire from Oxford, the young Secretary of State for India as a faithful follower of Mr. Gladstone; he

writes about the "pathetic indifference" of India to politics; pathetic indifference forsooth; has it never occurred to the young man that it is not merely a truth, but a truism that only those nations are happy whose politics are dull? In other words, who are happily indifferent to politics.

No doubt a vote is useful to men and even to women as a negative safeguard, as a guarantee against oppression; with the granting of it, the interest in it should largely cease. A man's happiness, a woman's happiness, still more a nation's happiness will assuredly never be measured by the abundance of the franchises which they possess, the number of elections they attend and votes they give, the political journals and the political clubs they support; but precisely by the opposite forces; by the degree and by the passion with which they give themselves to their private business and to their own homes.

I add a few disjointed but characteristic anecdotes. Some solemn and intense person of Mr. Gladstone's turn of mind went to Disraeli for an apophthegm, for a life maxim, instead of writing to Mr. Gladstone, the proper oracle of such prigs, for a post card. "Young man," he answered, "never ask whereabouts in Whitehall King Charles was beheaded or you will become—a bore." It was not quite as good an answer as the Oxford don's to the similar fool, "verify your quotations," but it was good enough. A dull speaker was boring the House of Commons; an intense, but deaf member of the temperamental calibre of Gladstone was leaning forward with his hand to his ear to listen. "Look at that fool," said Disraeli, "throwing away all the advantages of his condition." He had weighed well the value and meaning of literature to his illiterate countrymen. Some blundering Tory Squire and M.P. congratulated him on his novels; "I have not read them" said he (neither indeed have I) "but my wife says they are excellent." "This indeed is fame" murmured the novelist and leader.

With Disraeli everything was race and instinct and temperament. He was not Voltairean as was sometimes said of him. One might as well have called Newman or Pascal Voltairean, as indeed Newman was called, but the only truth in the epithet as applied to him or to Newman I apprehend to be this: that each of these men was a natural sceptic or doubter on the insoluble problems of the meaning of life and death; a natural sceptic on the side of his

intellect; none the less on that account conservative from instinct. Conservative because imaginative and romantic. The imaginative and romantic temperament is necessarily religious and necessarily monarchical; naturally it repudiates matter-of-fact commercialism and common sense as Carlyle repudiated Cobden, "the inspired bag man." At the bottom of these questions there lies, perhaps, the real dividing line between the two great historic parties, and that real dividing line is the line between aristocracy in the true sense of the word, that is, authority and quality, and on the other side democracy; or quality with an "e" prefixed and all the quality thereby subordinated and postponed; that equality which washes out quality and means equality for equals and unequals alike.

In no other sense was Disraeli anti-democratic; but he thought of democracy as a means not as an end; as a method only for finding true aristocracy, as a mode of election for electing the best men, the real aristocrats. Not as an end in itself, far from it; nay, as fatal when it becomes an end in itself, for then it implies no authority, no quality, no rule of the best, only the low standards which come of the rule of the man in the street. The ancient democracies of Greece, remember always, had the ever present slave to save them from low standards. Our democracy desires no such saviour, but all the greater on that account are our difficulties in trying to keep standards high. Disraeli as against this form of democracy founded Tory democracy by which he meant the government of a people by their betters for their own good and with their own consent; the government of noblemen and owners who took government as a duty not as a privilege, as a responsibility not as a perquisite: the government of a people by their "quality" to quote the beautiful and picturesque old phrase. In the old days when the landed proprietors had this quality, when they alone had it, people could feel a natural and instinctive loyalty to the king and the quality; difficult enough no doubt always, but doubly difficult to-day, in the era of universal education, to find the kings who possess this superiority and command such instinctive loyalty, and to find in landed proprietors the "quality" which evokes such natural deference: that quality has now hidden itself away in unsuspected corners, in the persons of men of all classes, so that birth and wealth are no longer any good guide.

scarcely even a rough guide—as they were saying yesterday in the Legislature of Ontario—to the places where quality still lurks. But though the task of finding quality is much more difficult and the quarry more deeply concealed, the search is just as necessary as ever. There is, indeed, no hope for man except in his natural instincts of loyalty and reverence for his betters; where there is no reverence (as when there is no vision) the people perish. It is just as essential as ever—though much more difficult—to provide that the standards set for a man's life and a woman's life and a nation's life, be not low standards and be not set from the street, be not set for all men by men without quality; by men who are literally only equals; only cyphers, indistinguishable from the mass of other cyphers. "Fear God and honour the King" is not only an old Tory maxim or a Biblical text for the whole duty of man; it is the instinctive speech of all men of romantic and imaginative temperament; and it is the reason they are conservative. All the spread of education cannot alter or diminish the force of that appeal—"Fear God and honour the King," but it certainly renders its application much more difficult, because it is so much more difficult to find the true God and the real King. And yet the alternative remains appalling and impossible; it is simply in the "*ni Dieu no maitre*" of the extremists of the French Revolution and of the Russian Bolsheviks (and already the Russian Bolsheviks seem to have found it necessary, if not to re-create God (as Voltaire said would be necessary in France) at any rate to re-create the harshest and sternest form of mastership) otherwise there is the extinction of all quality in the heavens above and in the earth beneath. And this instinct of reverence as I take it, this sense of quality is that which made Disraeli, Newman, Pascal and the like, loyalist and religious and conservative for all their sceptical and mocking intellect. They were too human, too large natured, too many-sided, too intelligent to be governed by a narrow and mocking intellect.

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APPLIED SCIENCE EDUCATION IN THE DEVELOPMENT OF THE COUNTRY*

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Canada has arrived at a critical period in her history with regard to higher education. At no time has there been a greater call for the application of science than there is to-day, looking toward the development of the country. This is due mainly, of course, to the reconstruction following the conclusion of the great war, but it is due also to the resumption of the natural expansion which was in progress before the war.

The call for men and means by which to carry out the work of the country, wherein Applied Science and Engineering knowledge and ability are required, is at once insistent and is universal from coast to coast throughout the Dominion. That it is more marked in some branches of the profession than in others or more pressing from one portion of the country than from another, is a temporary or a local condition due largely to the redistribution process after the war and is not an index of the real situation considered as a whole.

Those engaged in the work of education, especially in the secondary schools of the country, are vitally interested in the situation because it now appears that a special effort should be exerted to direct the proper type of students into these professions and it is desirable that they should be acquainted, not only with the nature of the demand which is being made throughout the country, but with the extent and the direction from which it is being made. It should be added in this connection that the frequently expressed fear that the various branches of the Engineering profession may become overcrowded, need not be seriously considered even notwithstanding the present inactivity in certain of them. The fear is rather that the present small monetary attraction in certain purely professional directions may unfortun-

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ately deter promising young men and that in spite of their good education and in spite of the country's demand they may drift from professional occupations. This, I believe, will soon right itself but even then, we may reasonably ask the question "Why should not a well-balanced Applied Science education be the most desirable for fitting a young man for an active life in any branch of business whether even indirectly connected with engineering or not?"

I must say for myself at the outset that I cannot claim to be an authority on education as it is only within the past few months that I have taken up my duties at the university, but I feel confidence in speaking in connection with the general subject of Applied Science viewed from the world outside, from my experience in the practice of the profession of engineering for many years before the war. From this viewpoint I can only bring to your attention the general features of the education of the young engineer in so far as he is to be fitted for his professional life in the technical world after leaving the university and I am reluctant to advise as to his general education before coming up to the university.

Before proceeding further it may be of assistance to define what is understood by the name and what we include under the general subject of Applied Science. I presume that the idea conveyed is indicative of the general application of the underlying principles of all forms of science and so far as this goes it is so; but the application as carried out in the various branches of the practice of Engineering goes much farther than that. Perhaps the larger significance of this can be better expressed in the old time-honored definition which has been the creed of the Institution of Civil Engineers (of London) for a century being "the art of directing the great sources of power in nature to the use and convenience of man." Those were the days when there was but one class, that of the Civil Engineer and that appeared to cover the entire field of technology. Now, however, this is all changed and while we find the Civil Engineer still doing many of the things he did a hundred years ago, he has many brother engineers in the mechanical, the electrical, the mining and the chemical sections of the profession not to speak of the architectural and similar branches.

Civil Engineering constituting by far the largest field in the profession, is divided into many sections and while it is not thought desirable to unduly subdivide it to the danger of over specializing in university courses, for instance, it may be better visualized by so doing as follows, for the purpose of outlining the field open to those who may wish to choose it.

Transportation Engineering comprises all that work connected with steam and electric railway construction and operation with their roads, bridges, tunnels and terminals. It similarly comprises also ship canals with their locks, water control and river improvement.

Closely allied with the foregoing are the general projects embraced under public works engineering including harbours, docks, terminal elevators, navigation aids and river and flood control.

Municipal Engineering is most varied and includes all the branches comprised in water supply with its pumping and distribution, drainage, cleaning and sanitation, streets and pavements with their lighting, traffic questions, park systems and town planning generally.

Closely connected with the foregoing are the branches of surveying and geodesy in which the precise work of mapping and the laying out, especially of the newer portions of the country, by triangulation and astronomical means, forms an important part; the newest method of surveying by aeroplane and aerial photography is presently also to be considered.

Hydraulic Engineering has now become of first importance in Canada with water and hydro electric power development, questions of water storage, supply and control, pumping, dams, canals, reservoirs, etc. Allied with this are irrigation and reclamation engineering.

In Structural Engineering, an ill-suited name for a large variety of works, there are included foundations of buildings and other structures, buildings of all descriptions requiring engineering treatment in their design and construction. from the mill building to the tall sky scraper and including in it all the various features of equipment, fire proofing, etc.

Bridge Engineering, closely connected with the last and including steel and reinforced concrete bridges and viaducts and all their allied problems of foundations, forms one of the most important fields of the profession. The design and all the processes of construction from the steel mills to the final completion and testing are full of that interest which is one of the rewards of the profession.

Highway Engineering while related to both transportation and municipal is now assuming such proportions that it is beginning to be considered as a separate branch. This comprises, in addition to the problems of engineering common to its basic work and the bridges, foundations, etc., those special features of road surfacing, pavements and similar work, both in construction and maintenance, which are the subject of so much study at present.

The foregoing eight subdivisions may be said to comprise the field in Civil engineering.

Mining Engineering forms such a large field that it too divides into various parts and although largely dependent on the character, locality and object of the mining operations, much of the engineering work involved is common to all. The processes of mining with all its civil, mechanical, chemical and electrical applications are followed by the processes of treatment or milling and refining of the ores by which the valuable portions are separated and concentrated or recovered. The laboratory work connected with these operations involving assaying and other analysis constitutes a large element in the work. Those preliminary portions of mining operations concerned with the exploration and primary development of mineral regions, together with the estimation of values of ore bodies, are also important phases of mining engineering apart from the mining and process portions. It is, perhaps, superfluous to enumerate the mining activities now being carried on in Canada, but it is useful to know that these include gold, silver, palladium, platinum, nickel, copper, mercury, arsenic, aluminium, sulphur iron, lead and zinc.

Metallurgical Engineering may be divided into two rather distinct parts; the first is the production of metals from the ores and the second the working of the metals so produced, which includes alloys and their treatment. In Canada to-day most of the

work has been on the production end. The various portions of Metallurgical engineering involve the application of mechanical electrical and chemical work in connection with furnaces and other metallurgical treatment. This branch also deals with fuels, now so important in Canada.

Mechanical Engineering which has a scope approaching that of civil, is almost as universal and probably as definitely established in its place in the activities of the country. It comprises all of that engineering work concerned with:—Steam engineering, a complete specialty in itself with its engines, turbines, boilers, heating, etc., of the stationary, locomotive or marine types. Internal combustion or gas engineering, involving all of the recent advances in motors for road and railway haulage and aeroplane uses. Hydraulic engineering as concerned with turbines, water motors, pumps and hydraulic machinery. Aerodynamical engineering as applied to-day in all the phases of aerial equipment and navigation. Gas engineering for heating or illuminating and heating and ventilating engineering which in its higher form involves complex scientific problems. Lastly, inclusive of the greater variety, that of manufacturing and industrial engineering, wherein are included the large range of manufactures in steel and other metals, milling machinery of various kinds for grain, wood and the common commodities of life, textile industries, ceramic industry of brick, pottery and tile manufacture, glass, cement, etc.

As to Electrical Engineering, the expansion during the two past decades is but an indication of the field now covered and still in process of extension. Electric power alone covers such a wide range of branches that specialists to-day treat each by itself; these comprise hydro electric and steam electric power generation and its transmission and application to motors, the application of electricity to manufacture itself and the hundreds of uses to which the power is put. Electric traction and transportation has also assumed very large proportions as applying to the equipment and electrical and mechanical side of the various transportation systems urban or suburban, apart from the engineering questions involved in those already enumerated under Civil Engineering. Illuminating engineering too has become a separate specialty, absorbing many engineers' entire energies. So also with com-

munication, with the telegraph, the telephone and wireless, all of which in their recent strides, have involved new complex problems. Then, too, as in mechanical engineering, the great field of electrical manufacture with its various branches and types of industry have absorbed and will employ a very large proportion of the scientifically educated men and women of the country. And lastly, the operation of electrical undertakings require by reason of their highly technical nature, specially educated and trained personnel so that this branch of electrical engineering forms a distinct group.

Chemical Engineering, with its advance and impulse from the war, has now taken a more definite place in the engineering world. It is now recognized by all the chemical industries that those engaged in it must be scientifically trained and highly so. Hence we find chemical engineering fields in the pulp and paper industry, in rubber, soap, the packing house, petroleum refining, sugar wood distillation, the tinctorial and textile industries, in alkali and caustic soda and many other electro-chemical undertakings. The possibilities in these fields are rapidly becoming greater especially as Canada is no longer exporting so many of her raw materials, but is manufacturing them at home.

Reference should also be made to the field of ship building and naval architecture, which, while not active in Canada at present, is likely to become an industry requiring a specially trained type of combined engineer and architect involving as well, mechanical and electrical branches.

In architecture, which is so closely related to engineering and which embraces much of the applied science common to both, it is of interest to observe the nature of the expansion into its different branches. Especially in Canada where architecture is now becoming more diversified, it is taking on a national aspect; we are getting a national style in some respects. This is manifesting itself in the architecture of public buildings, banks, railway stations, schools, office buildings, factory or mill buildings and in residences. Closely allied with the field of architecture are landscape gardening and that further branch already referred to under civil engineering as town planning, now being recognized as very necessary in this growing country.

With all the foregoing there is a branch which is now becoming common to nearly all the principal engineering fields and which is growing so rapidly as to be practically indispensable. This is engineering research. We have heard much of research in various ways, but there are no fields in which its employment and practice will give a greater return than in the engineering. Nearly all the great industrial concerns are now organizing their own research laboratories and many of the larger projects engaged in civil, mechanical, electrical and mining work are employing research methods to assist in this work. This may, therefore, be also included as a field of engineering, although, it naturally pertains more particularly to the special branch concerned.

Finally in this review of the various branches of the profession, no reference has yet been made to that phase which lies between the professional engineering and the business side of those projects or works connected with both—this may be termed the Administrative Branch. Reference has already been made to the likelihood of professional occupations springing up which combine the two, but it is difficult at present to foretell the trend this movement may take; it is certain to develop however.

Now, with this lengthy definition of the professions comprised in applied science and engineering and these short descriptions of their activities, we must stand to one side and endeavour to visualize their relation to the country's development. It will be agreed that they nearly all perform vital functions and require that kind of knowledge, ability and service which are essential in the nation's development and prosperity. The utilization of our natural resources to the best advantage, the best application of our industries, both basic and secondary, and the constant research and effort we can make to improve our material position, are all of the highest importance to us in securing and maintaining our place as a nation.

The important place then, which applied science education must take in our national development becomes manifest. Not only is it more important and necessary than it was ten or twenty years ago, but it is obvious that it is becoming more important each year, especially counted from the present, as the country proceeds on its course of prosperity and expansion.

What are we doing, it is asked, with respect to applied science education? Are we preparing to supply it; *are* we supplying it; are we going to keep abreast of the demand?

To answer these questions and especially the last requires a consideration of the whole educational system from the Secondary Schools up through the University out into the world of professional life. It is not sufficient for us to wait and see what and how great the demand is going to be; we must do more than that, we must anticipate it. If we can sensibly do that and endeavour to meet the requirements of the country in *eyeles* of four year periods—just as a business house or a manufacturer might do in anticipating the market—we will be performing our highest function in higher education by meeting and supplying the demand of the country *before* it is made.

As I said earlier I am reluctant to discuss or to advise about that part of the education of the prospective applied science student before he comes up to the university, not only because of my personal lack of experience as an educationist, but because it is perhaps not desirable for us at the university to offer suggestions outside of our own sphere. It may be helpful, however, if we look for a few moments at the type of student, who is best suited for pursuing an applied science course leading to the engineering professions—I speak as one who has been on the outside, engaged in the scientific professional work of the country.

The student who is ultimately to engage in those scientific pursuits which are concerned with the material resources of the country must display that quality of mind and that energetic, but studious temperament which will combine to make the man who is always a student and a thinker, while at the same time one who is an energetic practical man of action, courageous in putting his ideas and his conclusions into effect. He must be of the leader type, a student who obviously not only leads in thought, but also leads in action amongst his fellows—for how else can he succeed in the struggle for which he is preparing wherein leadership is such a factor? He must have born in him those qualities which give him a good sense of observation, size, form, weight and colour and he must have too the ability for quick decision combined with that judgment which is necessary to discern and maintain a sense

of proportion. Perhaps powers of observation are among the most important, for no one engaged in work of a scientific nature can hope to succeed without them, well developed and constantly exercised. That he have a fondness for mathematics is almost essential, but that he have constructive ability to conceive, arrange, organize and execute is wholly essential. In his languages, especially in English, he may get his first opportunities to display his constructive ability by his composition and expression of ideas. And here let me emphasize how much a thorough education means in the ability he must acquire to give expression in good English through his descriptive powers in speech and in writing. On my return from five years at the war, much of it amongst the various languages of Europe, I was shocked at the loose, ungrammatical, slangy and extravagant English I heard, not only on the streets of Toronto, but amongst students about the precincts of the university. Let me here make a plea for better English spoken and written, in all our schools throughout the land.

Looking at the education of this student from the university's standpoint as he comes up to enter upon his intensive four years Applied Science course, is the university asking too much in requiring that he be better prepared than he has been in the past, both in his languages and cultural subjects and in his mathematics? It is obvious that he must be well trained in mathematics but we wish also to make a plea for a fuller training in his other subjects. This higher standard forms a part of a fundamental principle in the education of the young engineer which is being incorporated in the scheme of his university work.

Considering the entire education of the young engineer there seems to be one general conclusion and that is he must be roundly educated. Nowadays, as has been already indicated, we require not only technologists in the form of applied scientists, but we want men who are more, much more than that. It is obvious that if a university does nothing else it ought to produce a broadly educated, well-informed citizen, capable of thinking for himself on all public questions and taking his part in leadership and genuine public service . . . all this apart entirely from the necessary special education and the application of it to his gaining a livelihood in the practice of his chosen profession. The university

cannot undertake in a short four years to provide the student with an intensive scientific course together with a continuation of his general education in its entirety. It can, however, provide him with such elements of that broad course as will specially fit him to take his place as an educated citizen specially trained in Applied Science, alongside all other university graduates who have followed other courses of study. To accomplish this it is considered essential and the university asks, that the Secondary Schools undertake as much as possible of this most desirable preliminary education to better fit the student to pursue his university course.

After the student in Applied Science comes up to the university he is confronted with an almost entire change in the character of his study as compared with that at the Secondary School. This is, of course, unavoidable because of the very fact that he is entering on an intensive course of a highly special type. When one remembers all the various branches of engineering which have been enumerated and realizes their diversity, it is not to be wondered that the student or his advisers are bewildered at the prospect. This is one of the unavoidable features of the work of this Faculty in the university and it is frequently lost sight of when comparisons are made; the complexity of work, the long hours for the student, and the arrangements of lectures, laboratory work and other fixtures involved in the time tables become difficult problems. A change made in the Applied Science Curriculum at Toronto several years ago has already effected an improvement in this regard by making the first year common to all departments and further arrangements are in contemplation for the future.

It is not the intention here to describe the details of the various courses in this Faculty at the University of Toronto, but it may be sufficient to indicate that various phases of practically all of the branches which have been previously enumerated are represented in some form. It must, of course, be stated that they are represented only in the fundamentals, for it would be impossible and unwise to attempt such a degree of specialization. In this regard there is a tendency now to decrease specialization and devote more attention to the fundamentals and that broader, more universal education of which I have already spoken.

In order to indicate the relative proportions of the various branches of engineering, as representing the present trend of importance attached to each in the University of Toronto, the following figures of registration during the current year may be instructive. In the whole Faculty for the four years' registration there are 810 students. Of these 405 are in the first year, 170 in the second, 140 in the third and ninety-five in the fourth. The distribution within the seven main departments is as follows for the four years combined:—180 in civil engineering, seventy-two in mining engineering, 140 in mechanical engineering, thirty-one in architecture, 160 in chemical engineering, 215 in electrical engineering, and twelve in metallurgical engineering. These figures cannot be taken, however, as an indication for the future for the proportions will doubtless materially change by increases in some of the smaller numbers. It is, nevertheless, of interest to conjecture in how far such figures are an index of the trend in the demand of the country for engineers in these various branches.

We have now considered the definitions and scope of the various branches of Applied Science, we have seen the importance which attaches to them in the country's development, we have examined the type of student who is expected to succeed in these, and we have, to some extent, observed the nature and range of the various courses provided to supply the special education required in Applied Science. It now remains for us to look toward the student's future after he leaves the university as a graduate. Wherein will his education as obtained from the Secondary Schools and the university, fit him for his active life as a professional man and a citizen?

If as a student, the young engineer attained proficiency in his work and profited by his university life in its academic activities, and if he has, during those constructive years in and about college, contrived to acquire that same kind of broad education that goes with mixing with his fellows, he ought to emerge on the world as a graduate well fitted to undertake the work in his chosen profession. During his course, if in addition to his lectures and other forms of instruction on the scientific side, he has benefited by his study in the philosophy of values and costs, in the economics of engineering work, and in the psychology of labour and industrial

problems and has attained a degree of skill in expressing his views on paper and in speech, then he ought to feel confident in taking his place out in the country, for his has been the kind of training the country requires.

But there is another side to be considered when the graduate goes out and it has a more fundamental bearing than all of his attainments in his academic life; it goes far back before the days of the university, back to the days of his early education in primary and secondary school and for that let us not forget our responsibilities. It lies in those attributes which the young man has in him acquired either from his home or his school, which affect, perhaps, more than anything else, the value the public will place on him when he goes out into life as an engineer. Personal qualities are a first requisite and stand far ahead of attainment in engineering science. Character, judgment, efficiency and understanding of men are worth more than we can measure in ordinary terms, when compared with academic knowledge.

So there is the sense of balance in Applied Science education. If the engineers and the applied scientists are to take their proper places in the country, they must, in addition to their technical education, be trained and be able to discern and to appraise correctly, those things which men consider to be worth while.

SOME EDUCATIONAL FALLACIES.

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Erroneous views on education have their roots in imperfect conceptions of the meaning and end of life. Such imperfect conceptions were very widely prevalent among us English-speaking peoples before our tremendous experience in the war. But for them it is quite conceivable that the war might have been avoided. It does not seem, however, that even that lurid illumination has altogether availed to rid us of our old illusions. We do not understand for instance, much better than we used to, the grasp of solid and immense facts which lay at the bottom of our ancestors' firm belief in such ideas as Hell and Purgatory, although we have had so flagrant an illustration of all that side of things.

Our prevalent notion still is to make the world safe for democracy, as though it had not been just the peculiarities of our democracy as we work it that made us live in a fool's paradise which proved to be very unsafe indeed for us. We cling to the dream of ingeniously constructing some kind of machinery which will enable people to do what they like and at the same time have all they want.

That being a very widespread attitude and not only in Russia and Ireland, it is not strange that what may be called the Sentimental Fallacy in Education should largely prevail; the fallacy of eliminating the rod and in general all that is hard and painful from our systems of training. But the rod has its place. Solomon was quite right about it. There is a stage in the development of most boys when the activity of right reason can sometimes be most effectively stimulated through his epidermis.

If that plain fact is adequately recognized at home, there will be the less need for laying stress upon it in school. But it is a fact which in the case of most youths, and often just in proportion as there is really something in them, cannot be ignored without serious disadvantage.

And nature has made perfect provision for quite safely doing full justice to it. There is a part of every boy beautifully padded and at the same time richly supplied with nerves which combines

the maximum of sensation with the minimum risk of real damage. It is a kind of flying in the face of Providence to neglect it under certain circumstances.

There is little remnant of privilege nowadays in Great Britain. But there is still one. In the public schools to which the rich send their children the cane still flourishes. A master there is free to love a boy enough to lick him when he needs it. That is often highly convenient for the master. But above all it is an inestimable blessing for the boy. He often dates an epoch in his career from that humiliating and painful, but most awakening experience.

For love is not to take people just as they are and be quite satisfied with that. It is to see the real self and energetically co-operate with the beloved object in liberating and shaping this real self. It is not on the surface. It has to be dug down to. The business of the teacher is to encourage and stimulate this process of deeper self-realization. He will not be afraid of applying physical pain on the rare and extreme occasions when that is indispensable, nor will he shrink from demanding the effort and labour which is the very essence of the process.

He will not too anxiously consult the present tastes of his pupil nor avoid subjects of instruction which he does not immediately and naturally take to with much avidity. The initial discrepancy and distaste may be no bad sign. It may on the contrary mean that this particular study is indicated as specially valuable for the needs of this particular pupil. The fact that it does not give him immediate pleasure is no proof that it is not quite within his ultimate reach or that he may not come to like it later on.

A great many of our tastes are acquired tastes. The permanent value of a study and the permanent pleasure derived from it are often in direct proportion to the reluctance of our first step into it, the resistance of its topmost crust.

And besides our whole life is or ought to be, one constant facing and conquest of difficulties, that is to say a constant growth on our part to the fulness of our stature of manhood, and it is poor education in which one is not well broken in and habituated to this strenuous warfare.

There is one supreme lesson above all others that we must all learn if we are to be of any use to others or get any real satisfaction for ourselves and that is to do our work whether we like it or not. If we have learned to do that at school then our school has done very well for us. If we have not then we must learn it later and much more painfully, in the stern school of life, or else be more or less ingenious shirkers and parasites all our days sucking the blood of others who have learned it. For there is always a certain very definite day's work that mankind must get done or perish, and each of us must either do his share or else load it on to the backs of our neighbours who do it for us.

The ideal schoolmaster then will not cut anything out of his curriculum merely on the ground that it is uncongenial to youthful flesh and blood. He will be the less inclined to the second Fallacy of the Modernists. This consists in recalcitration against what are called the dead languages on the ground apart from their difficulty of their being dead and being concerned with matters too remote from our present day interests.

My friend Professor Leacock, for instance, used to hold that two hundred years was the outside limit anybody should be asked to go back to. From this point of view, Greek would, of course, sink completely below the educational horizon, and anyone who had the good fortune to deal with a really live subject like Political Economy could only regard with the deepest commiseration persons like myself, chained to the oar of such a hopelessly antiquated galley.

But there was another result of this training which we might be less prepared to expect. It not only nurtured a whole people of intelligent critics and an amazing number of poets, orators and artists. That would have been remarkable enough. But the strange thing is that some of the keenest intellects of the scientific order, men who will always rank as the pioneers of exact and systematic investigation, Thucydides, Socrates, Plato, Aristotle, were formed by this almost exclusively literary education. I think such a fact is highly significant. It involves an important principle which I daresay I may have occasion to come back upon at a later stage, namely that there is fortunately no necessity to know beforehand what no one can possibly know, the special line of activity

which is destined ultimately to make his own, or to steer straight for that from the very beginning. There are some things which he ought to know in his general capacity as a human being, and, if we give him a reasonable opportunity of growing into these, we may safely exercise a somewhat generous faith that Nature will contrive in the long run to guide him towards his own special business, on the one hand, and that on the other hand, when he does arrive there, he will find himself none the worse, but on the contrary much the stronger and more masterly, even within his own chosen limits, for what he has picked up elsewhere.

Such then was the old-fashioned Athenian system of education and such were some of its fruits. But in the time of Aristophanes a new air had begun to stir. Men had ceased to be wholly satisfied with the poet's way of looking at the world. They had begun to suspect that the sun was not really a God who drove his fiery car daily up and down the sky and rose every morning refreshed from his bath in the ocean, "like a strong man to run his race." An ingenious person called Anaxagoras declared positively that he was simply a large red-hot stone twice the size of Peloponnesus. The scientific temper was abroad and all kinds of questions were being asked about things which in the old days had been regarded as beyond all question. An impious inquisitiveness, as it seemed to old-fashioned people, began to ransack the hidden sanctuaries of Nature, the things in heaven above and the things beneath the earth and in the waters under the earth. The most plain divinities were having their noses impudently tweaked in the pincers of the physical philosophers.

These atheists did not refrain from prying into the secrets of "that orb'd maiden with white fire laden whom mortals call the Moon." Nothing was sacred to them. All things were open to discussion: even the fundamental teachings of religion and morals. A new kind of schoolmaster, the sophist, had come into fashion, who charged thumping fees, in return for which he undertook to qualify his pupils to discuss any question whatever, taking either side alternately and victoriously maintaining it, proving to a demonstration, if need were, that black was white, and making the worse appear the better reason. To all this modernism Aristophanes is irreconcilably opposed. He is *laudator temporis acti*, an

uncompromising champion of the old system which produced the men that fought at Marathon—a battle no less surely believed by him to have been won in the palaestra and the lyre-master's school than Waterloo, according to the Duke of Wellington, was won in the playing-fields of Eton. He rises to the very height of song when he praises the wholesome, modest, reverent young men with strong and beautiful bodies, and minds sane and pure whom one used, in the old days, to see in Athens, instead of the putty-faced, impudent chatterboxes of the present time, without reserve or reverence, who have been hatched in the sophistic incubators.

His point of view is much like that of Mr. Samuel Blake as set forth by him in a recent pamphlet. In this Mr. Blake unfolds a terrible picture of the untrammelled freedom with which the most delicate questions concerning the family and marriage and such high and holy things are discussed in the university lecture rooms of America, and that too before mixed classes of youths and maidens, often with a lead on the part of the professor or sophist to decidedly unconventional conclusions. Mr. Blake's own view is that all this license is due to the modern criticism of the Bible, while in turn the relaxation of the moral bonds which he sees gaining ground alarmingly in the doings of our age is the direct result in part of this derivative academic removing of the ancient land-marks. It is, however, scarcely necessary to say that Aristophanes maintains the thesis in a somewhat more sparkling manner than Mr. Blake, whom his worst enemy would not accuse of anything approaching levity.

The poet pours unlimited and often exquisite ridicule upon what he considers the modern educational fads of his time. What could be more comical, for instance, than his caricature of scientific method in the investigation of the weighty problem: "How far can a flea jump?" The creature, after biting Chærephon on the eyebrow, had landed on the bald head of Socrates. His leaping power was measured with the utmost precision thus: Socrates dipped the insect's feet in melted wax and let him jump, then measured the distance between the traces.—*Q. E. F.* The question was settled once for all with that quantitative accuracy which is the glory of exact science.

Now I think we cannot help sympathizing a good deal, both with Mr. Blake and with Aristophanes, at least in the ultimate conviction or instinct which underlies their attachment to the past. Such men feel, and rightly feel, that there are certain high and immovable sanctities at the basis of human life giving it all its value and meaning. At any given moment these imperishable rock-foundations are represented at least for the great majority of men, and brought to bear upon their inward life and outward conduct in a more or less effective way, by forms and symbols, conventions and moralities and religiosities, myths and dogmas, so old and familiar as to seem inseparable from the inmost substance of the real things, the fundamental verities themselves; quite vital to them, bone of their bone and flesh of their flesh. It seems as if the inevitable expansion of man's mind by bursting through the one must disrupt and annihilate the other. But in fact it is not so. The symbols vanish. The new spirit breathes upon them and they melt away like a cloud. Not Mr. Blake nor Aristophanes himself, nor Mr. Chesterton either, can stop that, real as are the evils deplored by them, the wide-spread and often subtle unsettlement, the loosening even of moral bonds that usually accompanies this painful and wasteful but quite indispensable process. The old symbols go, but the great realities which they stood for remain. Man cannot live without them. His instinct of self-preservation secures their hold upon him. He cannot lose them without losing his own soul. Though obscured for the moment, and seemingly dissolved in the general flux, they infallibly emerge again. What seemed their death was but a re-birth; "Like a child from the womb, like a ghost from the tomb they rise and upbuild" themselves larger and fitter embodiments for the exercise of their own imperishable life.

Old fogeys like myself then, who are strongly attached to the time-honoured educational methods and subjects, will do well to take warning from the example of the first, and by far the most brilliant, assailant upon Fads in Modern Education. The physical studies on which Aristophanes emptied his inexhaustible quiver, the inquisitive attitude of mind so repulsive to him as to

many other poets, Campbell¹ and Wordsworth² for instance, all this had a great future before it. Perhaps, after all, the most distinctive claim of his people upon the admiration of posterity, the most important and original contribution they made to civilization, was just that they were the pioneers in this cold, dissecting way of looking at the world; the first who dared to see things as they are in their own nature without disturbing reflections from the altogether different nature and subjectivity of the observer. Aristophanes did not find it difficult to make people laugh at the new studies. We are always apt to see something rather ludicrous in what we are not accustomed to, and, of course, all new-born things must stumble about in a very comical way at first until they have learned to walk. At this distance we can see quite plainly that the future belonged to that ungainly movement so inimitably and immortally jeered at. "The whirligig of time has brought in his revenges," and now the laugh is rather on the prince of jesters himself. One must be wary then in stamping any single novelty as a fad. The reason why it seems so to us may happen to be far from complimentary to ourselves. It may well be because we have become ossified in a dull routine. Or, perhaps, the unfamiliar claimant represents a very real, though hitherto neglected, aspect in the very complex environment, ever growing more and more complex as thought expands, wherewith it is our business as teachers to help bring our charges into a living responsive interaction, an aspect which we have somehow contrived to ignore without physical extinction, which therefore seems negligible or even non-existent to us.

Huxley spent a good deal of the spare time, left over from hammering the theologians, in pressing and illustrating the educational value of biological science. It was easy enough to make fun of his "fad." What could be the virtue as a mental discipline of cutting up beetles and crayfish? That sort of messing was precisely on the same level as the Aristophanic flea and gnat investigations. So the old fogeys would have said and did say. And yet in this short time biology has already taken its firm place in all the universities that count, and even in many schools. Very few subjects, indeed, have proved so interesting to undergraduates.

¹"I ask not proud Philosophy to teach me what thou art."

²"Philosopher! a fingering slave,
One that would peep and botanise
Upon his mother's grave."

And, more than that, it is universally recognized, except among the incurable, that a grasp of the principle of development, such as may best and most convincingly be rubbed in by fooling with the inwards of bugs and guinea-pigs, is an absolutely essential part in the equipment of every educated man, quite indispensable to fruitful study in almost every single department of human knowledge, nature, history, ethics, or religion. Physics and chemistry used to be called "stinks" in Cambridge even, the more hospitable to innovations of the two great English universities. The name reflected admirably the prevailing contempt for these studies as compared with the classics and mathematics. They were at best a side-show. To take to them branded a man with inferiority; somewhat as if in athletics he chose to devote himself to bicycling rather than to football, cricket, or rowing. Nowadays, I fancy Oxford itself, and even the Provost of Oriel, would scarcely venture to indulge the traditional Olympian sniff at the world-transforming researches of such men as J. J. Thompson and our own Rutherford, men whom Lucretius and Vergil would have celebrated with honours not far short of divine. We must walk softly then, we gentlemen of the classics and antiquities. We must diligently guard against over-haste in stigmatising all novelties as fads. It may easily happen to us in doing so to write ourselves down in conspicuous capitals—by the letters of a highly undesirable but, according to the poet Burns, most characteristically academical degree.

Still there are such things as Fads in Education. And though it is a hazardous undertaking, I will proceed tentatively and modestly, taking my life in my hand as it were, to point out three of them, out of a great many more which seem to me to deserve the name: *Kühn ist das Mühen, Herrlich der Lohn*. Sobered, as we may well be, by our review of past precipitancies, shall we call them "fallacies" rather, a term perhaps a little less insolent if not less cocksure? If I understand him aright, he contends that the educational value of a subject lies in its very uselessness, and that classical studies being the most useless are therefore the best.

And yet for all that, we gerund-grinders, as Carlyle very unkindly called us, are not at all sorry for ourselves. We have it is true—at least most of us—come to admit that we are not so exclusively indispensable as we once fondly imagined. But we still

continue, in a modest way, to magnify our office, to think that it affords scope for all, and more than all, such faculties as we possess, and gives us plenty of opportunity to do work of the highest usefulness.

We no longer claim, I think, that every boy should be forced to learn Greek; that it should be poured by force into ears that are proverbially ill-adapted for making silk purses, but we do claim that a fair proportion of the best boys should have, what they can scarcely any more be said to have in Canada, an opportunity and some encouragement to learn it. We maintain that it is a matter of some considerable importance for any people, who are at all ambitious of taking a respectable place in the ranks of civilized humanity, that there should be among them a remnant and a leaven of really cultivated people such as can read at a pinch Homer and the New Testament in the original. It will be generally admitted that at least the latter of these two books has a fairly strong claim, so far as we can yet see, upon the permanent attention of mankind. There have been times, it is true, just before the French Revolution, for instance, when some extremely clever little men thought the world would soon make a shift to get along without it. This forecast, however, was destined to receive a somewhat striking falsification; and to-day it is well known to everyone who knows anything at all about such things, that there are very few lines of inquiry which are quite so much alive as the study of this old Greek book, as there are none at all more intimately bound up with our deepest and most pressing interests. Whatever may be our views or our surmises about religion, it is certain that we have here the very central knot and ganglion, as it were, of human history of which every educated man, every one who wishes to have an intelligent hold of the inward side of the world he lives in, and hates to grope about in it in the mere darkness, must necessarily seek to have some clear understanding.

Now the astonishing thing is that this book, though diligently read for centuries, used by countless thousands as the very staff and lamp of their life, has only quite recently, within the last hundred years, that is, begun to be subjected to an entirely free and systematic examination. Of late, new light was being thrown upon it every day. Only a few years ago some of its most im-

portant single words even, to say nothing of still more momentous advances, were for the very first time fully explained by Deissmann, by means of the Greek papyri found at Oxyrrhynchus in Egypt. Are we going to leave all the first-hand work in this field to the Germans? Is Canada not to take even the first steps to prepare herself for making any real contribution to what all white people, everywhere else in the world, know to be one of the most characteristically modern departures of intelligent activity? When shall we do so? When we become what, I think it was Curtius who said we Canadians are not, and that for the curious reason, as some will think, that we knew no Greek—a scientific people. When we are really permeated from the Atlantic to the Pacific by a love of knowledge for its own sake; when a very small minority of us, small but sufficient to tell, at last have our eyes opened to divine something of the great spiritual horizon of our race, and can see the luminaries of that sky in something like their relative magnitudes. When we do so it may be confidently predicted that this one great steadfast star which has shone upon the world for near two thousand years will once more again irresistibly fix our gaze. We shall care enough about it to seek to know about it all that can be known. We shall use all the telescopes and spectroscopes that can be brought to bear, or see that there are those among us who can use them and give us authentic news of it—nay, perhaps, invent new and improved instruments of our own Canadian make. And then there will be no more illiterate talk about Greek being an antiquated subject with no bearing on our actual life. Only persons who know Greek and know it very well can do for us this specifically modern and indispensable service, can lift us to a place among the elect, in the van of the procession of the nations, or even follow intelligently and give us reliable reports of what is being done by the real leaders of humanity elsewhere.

Do not suppose either that this sort of scholar can confine himself to what is called New Testament Greek. We have found there is no such thing. You cannot so conveniently limit the cerebral disturbance necessary to make a country great. What used to be called New Testament Greek is simply, speaking broadly, the Greek in use among the Hellenized peoples of Egypt

and the East. The very language of our most vital book can only be understood in its larger setting, in the light of what was called the "common tongue," and still more its world of thought can only come clear and stand out in full relief against the background of that whole ancient world differing *toto cœlo* from our own. Our New Testament scholar must know among many other things, the Stoics, and these will take him back to Aristotle and Plato, to the Greek tragedians and to Homer. In short he will not be a "live" man or do his work in this place and moment unless he lives over again and inwardly retraverses the whole course of the spiritual development of that great Greek people whose stamp is once and for all indelibly impressed upon all the inward history of our race. As to the necessity of keeping alive the study of Latin I need not say one word. There are very few even among the most fanatical opponents of the classics who do not recognize the obvious indispensableness of Latin for at least the majority of those who would claim to be liberally educated, and with those few I have no time to deal at present.

The third fallacy on which I wish to say a word is what may be called the Utilitarian fallacy. Perhaps a sufficient exposure of it has already been indicated. The people who wish their education to be immediately convertible into dollars and cents are numerous, like most other classes of foolish people. It is quite true that we cannot get on without some dollars and cents; though I think one excellent result of a more wide-spread and vital education among us would be the sincere conviction, that popular superstition exaggerates enormously the amount necessary for any really serious purpose: and another excellent result, that we should be able to make a little go a much longer way. A great part of the reason why we are such slaves of Mammon, and have gone astray after so many hollow and heartless admirations, is just that so many of us are dependent for all the excitement we can get out of the world on those primitive stimulations which are at once the most worthless and also the most expensive to procure. Whereas, if we were a really educated people we could find many ways of amusing ourselves that cost very little. We should be much more independent and prouder than we are. We should not care to call the king, or even a railway magnate, our cousin, if we could enter into that inner inalienable kingdom which con-

sists simply in the vigorous working of our own, too often, rusty powers. Good books are still fairly cheap; the newspapers—those inexhaustible mines of raw material for reflection—cost only a few cents; a man can always shut his eyes and think, if there is anything at all in his head, and get no end of fun out of it. “I have been happy thinking,” says the ploughman poet; pencils and paint brushes and paper or canvas are within a moderate compass; even a decent piano or violin can be come by readily; a hammer or spud for pottering away with rocks and plants, in the way of some mild geologizing or botanizing, can be begged, bought, or stolen; a walk in the country is free to all. Good music and good plays are also cheap in civilized countries. They will be, some day, with us. I do not mean, of course, that everybody will be able to do, or will care to do, all these things; but I do mean that in the boundless riches of the world without and within, very inadequately represented by the above examples, in *tanta copia rerum*, every human being who is not absolutely maimed by nature or stopped up by a criminal and acquired dullness beyond nature and contrary to her, should be able to find a playground and a kingdom.

And I will never believe that there is one single workman in Toronto, whose day's wages are so scanty or whose day's labour is so exhausting as to close all these doors upon him; if only we could keep him at school till he is fourteen years of age, as we most certainly could do, and shall one day do, and arrange our dealings with him there so as really to make something of that miraculous body and mind of his. One great fallacy in the utilitarian view is, that it fails to take account of a remarkable fact which the thoughtful have often occasion to observe—the fact that your frontal attack is usually the very worst possible kind of tactics. There are many things in themselves quite desirable to secure, wealth is one of them, happiness is another, popularity is a third, the favour of the fair sex is a fourth, and there are many others like fame and eloquence and wit and artistic effect generally—which cannot best be gained, or most surely, by driving straight at them. They are all essentially by-products. Take them in flank and they are likeliest to fall to you. Go your ways steering by the upper lights with your eye on the solid objects of which all these are but reflections, and they will come of themselves. Or

if some of them don't, you can do very well without them. If possible, never think of them. If there were no other consideration, that is the most cunning way to catch them. Leave them for the left hand which your right ignores, being too much and too profitably employed elsewhere. For a hot, direct pursuit is the surest plan to scare them away. The shy fugacious goddess of luck whose grace is all important here, eludes the hobnailed tread, flat foot, and stifling hug of her too robustious Cyclops of a wooer. "Farewell, she cries and waves her lily hand." Whereas, being female, she will often come more than half way to meet the swain who does not seem to see her.

There is no region in which a premature and covetous concentration upon mere lucre is so absurdly out of place and so certain to defeat even its own narrow ends (especially if you take the larger point of view of a whole people's interests) as in the matter of education. To make a people industrially effective you must make them intelligent. And they will never be intelligent unless a considerable number of them seek and love wisdom for her own sake, and not merely as the dray-horse for their provision carts. "Seek first the kingdom and all these things shall be added unto you." It is from the spiritual sky that the fertilizing rain must come to bring all foison and plenty down here on earth: that heaven is the source of all our light, and, therefore, of all our heat and power as well. To make even your baggage waggon go, you must "hitch it to a star."

In the second place (which is only, perhaps, one aspect of the other over again) this utilitarianism forgets that a man is not a beaver whose business in life is to lay logs. He is, in plain fact, an unspeakably complex creature with multiform relations to an infinite universe of intelligences and things. And the puzzling but obvious fact is that since all the parts of this universe are nothing in themselves except in their place as parts, that is, as implying and implied in the whole which lives in them and gives them all their life and meaning, he won't make much of any one thing unless he achieves the seemingly impossible task of getting in some sense or other the hang of all. The ultimate task to which society will set him, the particular service in payment for which he is destined to be provided with his bread and butter, may be

an almost infinitesimal one. He may be intended one day to be employed in a shoe-factory, contributing his small fraction along with the great number of others, more than a hundred I am told, among whom the modern division of labour apportioned the various roles in the production of a pair of boots. His compass of bread-winning labour may be much more restricted than a beaver's, and incomparably more so than a Polynesian Islander's. But he is a man all the same. He may, it is to be hoped he will, go far afield from his bootpegs. Spinoza, the spectator of all time and existence, supported himself by grinding optical glasses. Charles Lamb was a clerk in the Indian Office, John and James Mill also were officials there. Many more such cases might be cited.

Our workman is not very likely to range so widely, but it will infallibly be a bad business both for him and other people if he does not range at all. For what Carlyle says of him is literally true, he is an infinite shoe-black. He has in him both height and depth, potencies in height and depth, that are not less than boundless and terrific. If you doom him to dullness and vacuity, if the better part of him be stunted and atrophied, you let loose a great many more than seven devils. There is a slumbering volcano in him, not to be guarded against by the cunningest machinery of external repression. by no conceivable number of policemen, fleets, and armies sitting on the lid, but capable in spite of all such dampers of breaking out in widespread and conspicuous devastation. It was just this sort of man who made the French Revolution, and who has of late been so conspicuous in Russia. Woe to the society whose arrangements would make an ant of him, without taking steps to secure the ant's stinglessness, his convenient and enviable monasticism, the modesty of his claims and his immunity from desires.

But surely it should not be necessary to dwell on the mischief which Satan finds for idle and empty heads to do; the kindlier aspect is enough. It is sufficient to say that you do not exhaustively describe the poor fellow whose case is before us, in terms of his bread-winning labour, as when you call him the n th fraction of a shoemaker. He is a citizen who will have a vote; he must according to the ineluctable decree of nature go courting some day, and write love letters, and be called upon like the birds in spring

for some ingenious turns and trills in the way of more or less lyrical expression. When the time comes, too, it will make an enormous difference whether he can acquit himself creditably of his share with the nestlings, who cannot in this case be pushed out of the nest after a month's worms, but must be tended for years and go to school in their turn, and are not likely to do much there unless the male parent-bird shows some interest in what they are doing. He will also, it may be hoped, go to church, and if he is to avoid taking to one or other of the fancy religions that spring up like toadstools all around us, something equally preposterous, he will have need to be prepared for the large and intricate problems which confront him here, after a much sounder fashion than many highly educated people so-called. One part of that sound preparation will be to get off by heart, some really good pieces of our own literature, including a few chapters of the English Bible. The prophylactic virtue of such a course cannot easily be exaggerated. I can scarcely imagine any one who has undergone it, sitting in a gorgeous temple and listening with long and solemn ears to scripture lessons drawn from the lucubrations of Mary Baker Eddy and read alternately with Isaiah. The utilitarian proclaims as his great principle that the object of education is to fit the boy for the battle of life. Yes, of course it is. But the battle of life is not a mere battle for a living. It is a much wider thing than that. The whole extent of it is not adequately expressed in any formula short of the magnificent declaration of the Westminster Catechism, that man's chief end is to glorify God and to enjoy him forever; and that that is the crown of his battle. There is really very little fear about a living. Anybody with two legs and arms, at least in our country, can be confidently counted on to make a living. He can do that with one hand. The great fear is that he will never enter into anything at all that deserves to be called life.

But this utilitarian fallacy is only one side, the rather sordidly actuated side of a wider phenomenon—the modern tendency to excessive or at least premature specialism, which is extensively prevalent among the learned as well as among the vulgar. The range of things knowable has expanded so enormously in our day, and at the same time our demand for precision and completeness

in every single line has become so exacting, that a division of labour scarcely less minute and soul-destroying than the kind that obtains in the factories, has established itself even in many universities, especially, I think, in the United States. Many ingenious persons there devote their whole lives not only to one department of study, but to some inconsiderable fragment of one department. living and moving and having their being, for all the world, like mites in a corner of a cheese. Slaves of the microscope, coral insects of research, they pride themselves on knowing one thing and knowing it well. As if you could know the hand, as if it were a hand at all, without your knowing something, and without its being part of the whole body; as if science were a mere inventory, a catalogue, not *raisonné* of dead bits and *dissecta membra*; the scientific effort a mere registration of atomic facts and details. Of course we must have the facts. They cannot be too clearly scanned and sifted. And perhaps such myopic investigators may accumulate useful material. Perhaps it may be said of them. "*Es muss auch solche käuze geben,*" "Minerva hath need even of such blinking owls."

But they will certainly not go far. If they play the part of the harmless, necessary dictionary and are good to turn up—if they are useful, they are not admirable. It would be a mournful thing indeed if efficiency had to be purchased by such mutilation, if the final shape of human society should turn out after all to be a sort of beehive where one has only a choice between being a neuter or a drone. For my own part I will not believe that the nature of things forces upon us any such dismal alternative. There was no real reason why so great a man as Darwin was, a nature so large, simple, and candid should have had his comfortless confession to make, that his absorption in exact science, the inveteracy of that austere, cold, analytic habit of mind which intense and life-long labour had bred in him, should have quite dried up in his heart the springs of poetry and faith. I believe he was mistaken about himself; he accepted as authoritative a too narrow view of both poetry and faith, and his analysis of his own mind (he was no psychologist) was incorrect. Surely Keats is right and profoundly right: "Beauty is Truth, Truth Beauty. That is all we know and all we need to know." Surely these two supreme

divine things are not incompatible but only two aspects of the one identity, neither of them fully itself without the other. The fact must be that beauty, which includes both love and reverence in it, is just the glow and music of perfected truth, as Aristotle says finely that, in the body, it is the supervening charm, the flower of perfect health. Truth is not quite itself until it sing for us. We will not part till much further notice with the noble Greek ideal of culture; a harmoniously developed manhood, the stature and the breadth of a four-square humanity, sound in wind and limb without; and inwardly capable of responding tunefully and flexibly to all the main strokes of this brave and various world. In spite of the stifling, manifold knowledge which threatens like Frankenstein's monster to overwhelm the mind which has created it, in the teeth too of Juggernaut, the god of this lower world and his harsh demands, we will still hold up our heads and claim our undiminished birthright.

We will do our very best, then, to avoid the fallacy of the specialist, and not that only, but also the other vicious extreme, the last fallacy, out of a large remaining list of still remaining possibles, which I can overtake at present, namely, what may be called the Polymathic one. This consists in the superstition of the half-baked, that a man's intellectual wealth consists in the abundance of the separate things he knows, his fighting power in the weight and multifariousness of his panoply. It is what my colleague, Professor Dale, called the other day, the rag-bag theory.

Just this seems to me to be at the bottom of a good deal of the imperfect effectiveness of our Canadian, more particularly the Ontario, system of education. People think that if there is anything which it is desirable to know, and of course the real trouble is that there is nothing which is not, then we ought to make that thing part and parcel of our express system of instruction; make haste to include it in our school curriculum. I remember once finding in my boy's hands, when he was nine years of age, a book called "History Notes." It began in fine systematic style, like Euclid, with solemn definitions of the various concepts necessary to the proper understanding of history. Such indispensable notions as political economy, excise, import duties, government, administration were elaborately expiscated for the benefit of this

suckling, in such precise and abstract terms as it took me all my time to make head or tail of. The poor young wretch was supposed "to get them off by heart." As if he needed at that age of innocence to be told what excise and import duty was! As if all that could not safely wait till it came by the practical method of the immortal Squeers, till the time when, by the inevitable development of his own natural corruptions, he had made his first essays in running the cutter into the port of Montreal. There is a vast amount which a wholesome young person with ears and eyes picks up for himself, Heaven knows how, in old Mr. Weller's University, by grazing at large as it were. We are not dependent, thank goodness, upon the school, for any considerable proportion of which we know. The school does very well indeed if it does not "interrupt our education," if it arouses in us, or increases the desire to know, and shows us something of the right way to go about it. The mind is not a box, a sensorium, in which things are mechanically piled up, or even put into docketts. It is a living organ, a muscle, a lung, a stomach. When I made a plea a moment ago for some variety of pabulum for it, I did not mean that it was to be stuffed with all sorts of miscellaneous feeding like a Strassburg goose nailed to the floor for the manufacture of *paté de foie gras*. The great thing, almost the one thing, is to get it going on almost anything at all. It learns by doing, not by suffering. If only it begins to work spontaneously with a zest, the problem is solved. It will go on then by its own inner impulse—*ponderibus librata suis*—and find its own pet pastures for itself. The world is all before it where to choose. There is nothing impenetrable to it, indigestible by it. The whole universe belongs to it, for the substance of the universe is, as I believe with Hegel—else how could the mind move one step?—just such stuff as itself is made of, namely, reason. Our practical problem then is to choose out certain subjects, and not too many of them at any one time, which will be as nearly as possible perfect foods, bringing to bear and exercising all its digestive machinery, the whole gamut of its energies.

But above all not too much at a time. Above all some approach to the priceless simplicity of the older educational curricula. The most fatal thing of all is that this living member, so

exquisitely capable of torture, should be bewildered and paralyzed, chased from pillar to post like a tourist racing through the picture galleries. The net result of that method is, of course, nothing or worse, mere dyspepsia of mind and body, a dizzy blur, a dull sense of powerlessness and persecution. There is really no hurry: *Die zeit ist unendlich lang*. Give the young shoots plenty of time to throw out those miraculous tendrils of theirs; time to grow naturally into what they will twine around of themselves, if you do not vainly seek to tie them or nail them to it; and so most likely kill them. Give their minds a chance to play freely about what you wish them to learn, to gain in some degree the unspeakably encouraging and quickening sense of mastery. Bring them at least within divining distance, on Pisgah as it were, of that feeling which is the beginning of all education and the teacher's highest triumph to awaken; the dawning suspicion that this uncanny thing on the black board or in the book, which they incline first to shy at like young horses, is not after all something hostile, external or alien, but in reality their very own—a half-covered treasure, to be digged for indeed but not hopelessly inaccessible, in the boy's or girl's own deeper self; a permanent possibility of sensation, an enlargement and heightening of life.

The problem of combining a reasonable and necessary variety with simplicity is not an insoluble one. Neither, to go back for one last moment, is it a chimera to reconcile the far sight and the sharp close vision. The larger horizon need not be incompatible with facility in the use of the microscope. The *non omnes omnia possumus* is true alas! We must clip our wings and confine ourselves to some one field, if we are to accomplish anything considerable. No one can be an admirable Crichton nowadays. *Entbehren sollst du sollst entbehren*—thou must renounce, renounce. That is the stern and wholesome law of life, that pinches some of us nowhere more than in the unavoidable self-restriction here, to some things or thing, where all are so fascinatingly interesting. It is on one main side the tragedy of our imperfection and of the brevity of man's days, and I think one of the chief arguments for immortality. I had a dear old friend, Dr. Williamson, the brother-in-law of Sir John Macdonald, another not unlike himself, except that Sir John had had his nature, like the dyer's hand, subdued somewhat to what it worked in. The old gentleman had

studied most things. He had taught classics, physics, New Testament, and astronomy in the University. He was a preacher and theologian, and one of the best botanists in Canada. He had learned French in Edinburgh in his youth from some noble émigrés of the Revolution, their lovely language and their fair manners. He also spoke Italian beautifully. He died over ninety years of age and had, just before, begun seriously for the first time the study of philosophy. That, I believe, is what he is doing now. Few indeed can be like him, because few can have his child-like heart. But in a world where all things are so closely related together, the infinite variety and embarrassing riches of which is only after all an endless series of exquisite variations on a few simple fundamental themes, constantly repeated in thin disguises, kaleidoscopically illustrated as it were, it should be possible, in such a world of system, law, and unity, to extract from a quite compassable range of studies something not altogether undeserving the name of a grasp of the whole at least in its essential substance. Even in our day we need not altogether despair, I think, of the Aristotelian ideal—the universally cultivated man. It was said of Goethe, who certainly did not know everything, having, as he undoubtedly had, among other things, a poor head for the mathematics, that if the work of creation had stopped on the fourth day, he could have furnished the ground plan for the other two, including, I may add, the song sung by the Sons of Morning, which last indeed he has actually contributed in the opening lines of “Faust.” The Stoics said that the wise man must be a shoemaker, physician, philosopher, and king. I cannot see that at bottom they were asking anything much out of the way. It should be possible, nay I think it has in large part already been done, without breaking anybody’s back, by the Germans, to arrange our High School and University courses in such a way that, when a man finally settles down to his little part, he shall be able to do it not like a mole but like a being of large discourse of reason, in the light of the whole, to see the whole in it with some tolerable fullness as one sees the stars out of the smallest sky-light: that he shall be able to stand on the heights of his time, in the places of large vision, and emerge into the wide sunshine, following with intelligent sympathy what is being done by other people as well as by his fellow-ants and insects of the den.

LA REFORME DE L'ENSEIGNEMENT EN ESPAGNE.

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Mesdames, Messieurs, Chers Collègues:—

“L'éducation, à proprement parler, est l'art de manier et de façonner les esprits. C'est de toutes les sciences la plus difficile, la plus rare et en même temps la plus importante.” Si cette pensée du grand éducateur français, Rollin, est vraie, nous pouvons en conclure qu'il est toujours possible de disenter sur cette délicate question, sans jamais l'épuiser.

C'est pour moi un honneur que de pouvoir en parler devant vous, dont on ne louera jamais assez l'initiative, le zèle, le dévouement, et j'ajouterai, les sacrifices personnels à la cause de l'enseignement, à la veille surtout de l'application, dans vos écoles, des réformes que les nécessités actuelles imposent à vos programmes.

En vous exposant aujourd'hui l'histoire de l'enseignement dans un pays qui est rarement pris en exemple et que l'on consulte fort peu d'ailleurs en cette matière, il me semble que j'accomplis un acte de solidarité avec nos collègues qui, en Espagne, ont lutté pendant un demi-siècle pour une réforme qui est sur le point de se réaliser et dont les conséquences auront une importance capitale pour la formation intellectuelle des générations prochaines.

La réforme universitaire en Espagne est, depuis six mois, un fait accompli. Les universités espagnoles ont enfin reconquis l'autonomie qu'elles avaient perdue, il y a deux siècles.

Aucune modification n'a encore été apportée dans l'enseignement secondaire, mais il existe à Madrid une école modèle qui servira sans doute de base à la réforme éventuelle. Les espagnols se sont refusés à copier les méthodes en honneur dans les pays étrangers et, d'autre part, ils n'ont pas voulu tenter un changement radical sans en avoir d'abord éprouvé les chances de succès par une expérience restreinte qui ne date d'ailleurs que de quelques années.

Il semblerait à première vue que la réforme de l'enseignement supérieur n'ait rien à faire avec celle de l'enseignement secondaire, car l'Université n'est sortie victorieuse de la lutte que plusieurs

mois après la fondation de l'école modèle, et les insuccès qu'elle avait subis jusque là étaient trop flagrants pour supposer qu'elle ait pu avoir la moindre influence sur tout autre ordre d'enseignement. Mais en Espagne comme ailleurs l'enseignement supérieur décide nécessairement du sort des autres et il nous suffira de suivre rapidement la crise que l'Université vient de traverser pour découvrir la véritable origine de la réforme de l'enseignement secondaire qui s'achèvera très prochainement.

Il ne serait pas inutile de rappeler ici les débuts de l'Université espagnole et l'époque glorieuse de sa prospérité, avant de vous parler de sa décadence et des tentatives louables qu'elle réalise de nos jours pour son relèvement.

Il est incontestable que l'Université de Paris a eu, dès le commencement, une influence marquante et presque prépondérante sur les études en Espagne. Toutefois il convient de reconnaître que l'Université espagnole du XIII^e siècle avait sa physionomie propre. Les *Estudios Generales* de Salamanque et de Palencia constituent sans contredit le précédent national de ce qu'on appela plus tard l'Université.

Les lois du XIII^e siècle relatives aux Universités ont le mérite de leur avoir assuré une vie prospère et glorieuse. Cette législation très curieuse ne se référait pas seulement à l'enseignement, mais encore aux locaux qui lui étaient affectés et aux conditions hygiéniques des résidences des étudiants. Elle traitait même, en une sorte de règlement particulier, de la vie honnête que devaient mener les étudiants. Elle réglait également les honneurs et privilèges, fort considérables, réservés aux maîtres.

On conçoit aisément, que, grâce à ces moyens où rien n'était laissé au hasard, l'Université espagnole ait rapidement conquis une grande influence qui s'étendit même au-delà des frontières. Au XV^e siècle, l'Académie de Salamanque cède à celle de Paris, sur la prière de cette dernière, un professeur de mathématiques, Pedro Ciruelo, et à celle de Bologne, un professeur de musique, Bartolomé Ramos.

Toutefois c'est au XVI^e siècle que l'Université atteint son plus haut degré de splendeur. Richement dotée, elle peut donner un enseignement gratuit. Ses progrès sont remarquables et rapides. Si parmi les étudiants de tout âge figure la fleur de l'aristocratie

contemporaine, il en est aussi qui appartiennent aux classes sociales plus modestes. Tous suivent les cours par amour de la science et de l'érudition.

Devant ces succès sans cesse grandissants, les universités se multiplient. Leur nombre est porté à 36 vers la moitié du XVII^e siècle, le triple de ce qu'elles sont restées aujourd'hui!

Si nous recherchons la raison de cette splendeur magnifique nous la trouvons dans l'organisation même de l'Université d'alors. Complètement autonome dans sa vie intérieure elle a le libre choix de ses méthodes. Le Recteur, qui est élu par les professeurs et par un certain nombre d'élèves, en est la seule autorité. Une entente cordiale unit tous ses membres. Maîtres et élèves (le gouvernement oublie souvent aujourd'hui que ce sont eux qui constituent l'université) se comprennent et s'aiment, car leurs travaux tendent au même but et souvent même les élèves ont le droit d'élire leurs professeurs.

Le XVIII^e siècle marque le déclin de l'Université espagnole. Sa constitution est profondément modifiée. Elle perd son autonomie et sa liberté. La décadence s'accroît à mesure que l'Etat, centralisant la vie intellectuelle et matérielle du pays, prend entre ses mains la direction de l'enseignement.

Vers la fin du XVIII^e siècle, on institua les Directeurs et les Censeurs dont le rôle principal était d'intervenir dans toutes les questions scientifiques. Ils effaçaient entièrement le Recteur. Du même coup, toute initiative disparaissait dans l'Université.

Les tentatives de réforme dont on note, au commencement du XIX^e siècle, de timides essais, étaient d'un caractère trop abstrait et d'ordre purement théorique: elles n'eurent aucun effet et n'aboutirent pas.

Au XX^e siècle, l'Université espagnole ne rappelle en rien ce qu'elle fut au temps de sa prospérité et de sa grandeur, lorsqu'elle faisait l'admiration des autres états de l'Europe. Subordonnée à la politique dont elle est devenue l'un des organismes, elle n'obtient que de médiocres résultats.

L'enseignement supérieur gratuit n'existe à présent, il est vrai, dans aucun pays, mais par contre, on n'en trouve aucun où l'étudiant soit contraint, comme en Espagne, de payer un droit de 600 à 1100 francs rien que pour le délivrance du diplôme. N'est-ce

pas une honte pour le gouvernement espagnol que de se servir des Universités pour augmenter son revenu ?

Il est de toute évidence que de pareils procédés, loin de contribuer à développer l'enseignement, ne peuvent que l'entraver et faire que l'instruction soit réservée aux seuls privilégiés de la fortune. Au moins si ces droits exorbitants étaient affectés à la constitution de bibliothèques et à la création de laboratoires !

Quel contraste entre les deux organisations du XIII^e et du XX^e siècle ! Fort heureusement l'Université espagnole a compté de tout temps des savants et des littérateurs de talent, des hommes de conscience et de goût, dévoués à l'enseignement comme à un apostolat. La lutte ardente, mais toujours courtoise qu'ils ont menée en faveur de la cause qu'ils défendaient, aboutit aujourd'hui à une réforme radicale et complète de l'enseignement.

Il existe en Espagne, depuis une douzaine d'années, une institution particulière qui porte le nom de "Junta para ampliación de estudios e investigaciones científicas" (Comité pour le développement des études et recherches scientifiques.) Sa désignation explique en quelque sorte son rôle ; je dirai tout à l'heure quelle est son importance, toujours croissante. On a beau chercher dans l'histoire de l'enseignement des divers pays, nulle part on ne trouve trace d'une institution de ce genre. Cette anomalie ne peut s'expliquer que par le fait que, dans l'intention de ses fondateurs, la *Junta* devait remplacer l'Université, tombée à leur avis trop bas, pour qu'il fût possible d'attendre son relèvement.

Si, à un moment donné de leur glorieuse histoire, les Facultés Françaises des Sciences et des Lettres, mal dotée, mal outillées, ont manifesté des symptômes de décadence, l'Ecole Normale Supérieure les a suppléées en partie et elle est précisément devenue par excellence l'établissement de haut enseignement. Elle a du reste rempli ce rôle avec éclat pendant tout le cours du XIX^e siècle. Elle avait toutefois, en un sens, dévié de son but : et, lorsqu'elle fut rattachée en 1903 à l'Université de Paris, fait important au point de vue qui nous occupe, le décret officiel la ramenait à sa véritable destination. Aux termes du nouveau règlement, l'Ecole ne devait pas être seulement une Ecole de Hautes Etudes, mais encore un véritable Institut pédagogique.

L'Espagne n'a jamais rien possédé de semblable et à tort ou à raison, on s'est obstiné à refuser à l'Université les fonds dont la nécessité se faisait de plus en plus sentir pour qu'elle fût capable de remplir ses fonctions. On alla même plus loin, en lui arrachant quelques-unes de ses prérogatives, et en 1907 la *Junta*, dont je tâcherai de vous exposer le rôle et l'influence, était fondée.

Il convient de signaler d'abord que cette institution qui jouit d'une indépendance presque absolue, est dotée par le Gouvernement des moyens suffisants pour ses travaux. On en jugera facilement par ce fait qu'elle a à sa disposition, pour ses frais de publications, une somme trois fois supérieure à celle dont disposent, pour le même travail, les dix universités ensemble.

Les fonctions de la *Junta* sont nombreuses et elles augmentent, semble-t-il, à mesure que s'étend son succès. A l'étranger, elle est surtout connue par quelques-unes de ses manifestations qui, bien que d'une certaine importance, paraissent cependant bien secondaires à côté d'autres sur lesquelles je crois devoir particulièrement insister.

Elle envoie, par exemple, des boursiers dans les Universités des Etats-Unis et dans les écoles normales françaises. Elle a fondé à Rome une Ecole Espagnole d'archéologie et d'histoire. A Madrid elle a créé des cours de langue et de littérature espagnoles pour les étrangers, une Maison des étudiants et un patronat d'étudiants (*Patronato de estudiantes*) pour aider les familles espagnoles dans le choix d'écoles étrangères pour leurs enfants. Elle désigne les personnes qui doivent représenter l'Espagne aux congrès scientifiques et littéraires internationaux. D'accord avec "L'Institut Cultural" (*Institución Cultural Española*) de Buenos-Aires, elle envoie chaque année, un professeur qui fait des conférences littéraires ou scientifiques pendant les mois de juin et juillet à l'Université de Buenos-Aires et on annonce actuellement que de semblables relations vont s'établir avec d'autres pays hispano-américains. Elle tâche enfin d'aider autant que possible les établissements étrangers dans le choix de professeurs espagnols.

Ces dispositions prises par la *Junta* ne dépassent pas ce que l'on est convenu d'appeler les moyens de propagande à l'étranger. Ce sont les méthodes pratiquées ou suivies par d'autres pays. L'oeuvre est louable et il convient de souhaiter que l'Espagne la

continue et qu'elle élargisse ses moyens d'action; on peut s'étonner toutefois que l'Université n'ait pas été appelée à y participer, au moins d'une manière officielle.

En dehors de ces fonctions que j'appellerai volontiers secondaires ou accessoires, la *Junta* joue un rôle plus important dans le pays même. A peine créée elle prend une place prépondérante: elle se pose comme l'établissement de haut enseignement tel qu'il n'y en eut jamais en Espagne. Il semble qu'elle soit en voie de devenir une sorte d'Ecole Normale Nationale qui se propose en même temps pour but la réforme de l'enseignement secondaire.

Elle fonde en effet, dès 1910, deux Instituts l'un pour les lettres (Centro de Estudios Historicos) l'autre pour les sciences (Instituto Nacional de Ciencias) et elle met à leur tête, comme directeurs, deux savants dont les travaux et le réputation ont depuis longtemps franchi les frontières.

Ces deux institutions nouvelles n'ont d'autre, but que les recherches littéraires et scientifiques; en même temps elles préparent à l'initiation à ces recherches un nombre d'élèves qui est limité. Les candidats à ces instituts n'ont pas à subir d'examen d'entrée. L'enseignement est gratuit et libre. Seuls cependant sont admis aux travaux de recherches les élèves qui ont déjà suivi des cours dans les Facultés ou dans les écoles supérieures.

Il serait superflu d'exposer ici, en détail, le programme d'enseignement, et les sujets des travaux accomplis, mais s'il nous est permis de juger de la *Junta* par son oeuvre et par ses premières publications qui,—il n'est pas inutile de le rappeler—ne datent que d'hier, nous sommes en droit d'en attendre de merveilleux résultats.

Il n'est pas possible de porter dès maintenant un jugement, quel qu'il soit, sur son enseignement. Il serait prématuré même d'augurer quel sera son avenir. Nous trouvons-nous en présence d'une tentative qui pourrait donner à la langue à l'Espagne un organisme comparable à ce que sont pour la France les Grandes Ecoles officielles à Paris? L'avenir nous le dira. . . .

En 1918, la *Junta* a fondé à Madrid un lycée qui prit le titre d'Institut-Ecole (Instituto-Escuela). Cet établissement est destiné à la formation des nouveaux maîtres qui enseigneront dans les lycées.

La réforme de tout l'enseignement secondaire du pays sera basée sur le fonctionnement de cet Institut-Ecole.

Des différences profondes caractérisent les deux enseignements donnés dans l'ancien et le nouveau lycée en Espagne. D'une part, l'Ecole secondaire prend l'enfant à l'âge de 10 ans et le cycle des études comporte six années. Le programme est uniforme; tous les élèves suivent un enseignement identique dont voici les grandes lignes: la langue nationale est étudiée en première année, puis abandonnée en 2^e et en 3^e année. On enseigne la littérature espagnole en 4^e et en 5^e année seulement; le latin en 2^e et en 3^e année; et le français en 3^e et en 4^e année. L'allemand et l'anglais ne figurent qu'au programme des écoles commerciales. Les mathématiques sont étudiées pendant les quatre premières années, la physique en 5^e année et la chimie en 6^e avec la philosophie. Un examen de sortie confère au lycéen l'admission à l'Université.

Nous ne nous attarderons pas à la critique de ce plan d'études qui est franchement defectueux. Ses résultats sont médiocres et d'ailleurs personne ne s'oppose à ce qu'il soit complètement remanié.

Le nouveau lycée de la *Junta*, au contraire, a un programme beaucoup plus souple et plus moderne. L'élève y est admis à l'âge de onze ans; mais il est à noter qu'il est annexé au lycée une école préparatoire qui prend les enfants dès l'âge de 6 ans, d'où le nom d'Institut-Ecole. On y enseigne la langue et la littérature espagnoles pendant toute la durée des études qui est de six années, comme dans le lycée ancien. L'élève commence le français en première année et l'étudie pendant trois ou cinq ans à son choix. Il en est de même pour le latin dont il aborde l'étude en 2^e année. La langue anglaise ou la langue allemande figure au programme de la 3^e et de la 4^e année ou bien de la 5^e et de la 6^e, au choix de l'élève.

On n'a pas jugé opportun de suivre la réforme française de 1902 en ce qui concerne les deux cycles et les quatre sections; mais —et cette innovation me paraît très heureuse—des dispositions ont été prises de telle sorte que les programmes des deux dernières années d'études peuvent être déterminés d'accord par la *Junta* et par la famille de l'élève. Ensemble elles choisissent les quatre matières qui comportent dix-huit heures de classe. Dans certains cas l'élève est autorisé à suivre l'enseignement de cinq matières au lieu

des quatre sur lesquelles portent l'examen de sortie pour la délivrance du diplôme.

Ces quelques détails suffisent, je crois, à montrer que ce nouveau type d'école l'emportera facilement sur l'ancien lycée et que la réforme complète de l'enseignement secondaire ne saurait plus tarder à se réaliser.

Pour bien comprendre l'origine et la portée de ces réformes que réclament d'ailleurs les nécessités de la vie moderne, il faudrait tracer ici les lignes générales d'action des partis politiques qui agitent l'Espagne actuelle et montrer, avec leurs influences respectives, les résultats de leurs luttes. Il serait nécessaire, en un mot, de faire connaître le milieu où ces réformes prennent naissance et, en quelque sorte, de les situer; mais la tâche n'est ni aisée ni agréable: j'y renonce bien volontiers.

Cependant il faut signaler qu'après une période où la lutte fut très aiguë entre la *Junta* et l'Université, un moment d'accalmie semble se produire. Aurons-nous à enregistrer dans l'avenir une nouvelle recrudescence d'animosité entre les deux organismes? On peut en douter car l'Université jouit maintenant d'une grande autonomie. D'ailleurs on est porté à croire que tôt ou tard l'Université et la *Junta* s'uniront dans un commun effort pour le développement et la prospérité des lettres et des sciences.

Ce résultat paraît devoir d'autant plus facilement se réaliser que quelques uns des membres les plus éminents de la *Junta* appartiennent en même temps à l'Université. Tous ceux qui s'intéressent à la question de l'enseignement, applaudiront au geste du Gouvernement, de quelque nuance politique qu'il soit, qui soutiendra le groupe considérable d'érudits qui, tant dans l'Université que dans la *Junta*, sont appelés à jouer dans l'histoire contemporaine de leur pays un rôle des plus importants.

THE ONTARIO HIGH SCHOOL, PAST AND FUTURE.

DR. W. N. BELL, PARIS.

The High Schools of Ontario had their origin in an Act of Parliament of 1807, which was procured in the interests of government officials. The schools originally established numbered eight and were located at points convenient to military establishments. The important four were those at Cornwall, Kingston, York and Niagara.

Boys were taken into these schools at an early age, entering the preparatory class, as there existed no primary schools at the time. The instruction was modelled upon the practice of schools in the Motherland and the text books were of course brought thence. These schools and all those founded for many years after, were a law unto themselves. They were neither made nor marred by regulations nor inspection. The master truly made the school. There was none of the uniformity of later days. The only uniformity consisted in their being one master, one room, a plentiful supply of canes, crude equipment and a raft of sturdy boys. Some of the schools exercised a powerful influence and some not. That of John Strachan at Cornwall, and later at York, stood at the head. The great master in those happy times meant the great school for he worked untrammelled and unfettered. He could construct as well as control. He could select his text books, but more, he could select his subjects and was free to devote as much or as little time to each as his judgment dictated. He was then supposed to have judgment.

But just as truly the weak master made the weak school and there were in those days not many John Strachans. Accordingly secondary education was on the whole not efficient and no improvement was noticeable until after government inspectors were appointed. This took place only in 1853, nearly half a century after the first eight schools were founded, and government inspectors did not immediately overcome the difficulties. Two things hindered the progress of the schools—first, the wide spread and persistent feeling that they were the preserve of the upper class and second, the fact that local financial support was voluntary.

Voluntary support proved to be excessively scanty support. So that the second disability was based on the first—if the upper class wanted the special school let them pay for it.

Dr. Egerton Ryerson who did so great a work in placing common schools upon a solid foundation, did not succeed so well in solving the difficult problems presented by the secondary phase of education. The higher schools always retained for him more or less, their character of step-children. He had many advanced ideas floating about in his capacious mind, but no consistent plan got the mastery. He lacked conviction. The intensity of his convictions as to common schools, perhaps, left him with insufficient energy for the other tasks. He became Superintendent of Education for Upper Canada in 1844. His earlier reports do not mention grammar schools, as the secondary schools were then called, for he did not at first regard them as under his care. An Act of 1850, however, required him to report on the condition of these schools, the legislation no doubt being of his own suggestion, for in *The Journal of Education* of November of 1849, he had been pretty free in his criticism. This article and his report of 1850, give a luminous picture of conditions and are historically invaluable. The schools were "a compound of everything." The masters were attempting to teach the alphabet to one pupil, writing to another, grammar to a third, and classics and mathematics at the other end. In the preparatory work they were competing with common schools and were called upon to do this by the more wealthy who desired an exclusive school for their children. Another source of evil was that some of the schools admitted "female children!" The result was in general disappointing. One man could not do everything well. The grammar schools ended in failing at both ends. They neither succeeded as primary nor as secondary schools. Thirty or forty of these schools had matriculated only eight pupils at last Convocation. They needed, he said, a fixed course of studies, rules of discipline, a standard of admission and governmental inspection, and these things he proceeded to give them.

It is worth while even at the risk of seeming discursive to advert for a moment to some of the advanced ideas enunciated by Ryerson. One was that there should be *Real* schools, "to prepare

for the business of a farmer, an architect, an engineer, a manufacturer or a mechanic and grammar schools to prepare for the university and the professions." Another suggestion he made was the establishment in each district of a practical agricultural school with a model farm of 200 acres attached. In order to prepare teachers for these schools lectures in agricultural chemistry were given at the Normal School in St. James Square and the spacious grounds were ploughed in 1853 and turned into experimental plots and some very good samples of wheat and other grains are said to have been produced. I cannot find that Ryerson ever seriously attempted to bring the *Real* school or the agricultural school with its model farm into being. They remain modern ideas to this day and we are just beginning to see some movement in the two directions.

By the Act of 1853, a standard of entrance was adopted. It included reading, spelling, writing, arithmetic—simple and compound rules—elements of English grammar and the definitions and outlines of geography. The examination questions were to be prepared and the test held by the head-master of each school.

Two inspectors, Principal Robertson and Vice-Principal Ormiston, of the Normal School, were appointed and inspected the schools for the first time in 1855 and here we get a glimpse of actual conditions in the schools from their reports. From twenty-five to thirty per cent. of the pupils were unable to read and write. The reason why this large proportion of children at the threshold of primary education were in attendance at secondary schools was the social reason already alluded to. The school premises presented "a dull unthrifty appearance, destitute alike of ornament and convenience without fence, shed or well, tree, shrub or flower; while within an entire lack of maps, charts and apparatus was the rule." The average head-master's salary was \$700.

The Act mentioned enabled municipal councils to levy assessments towards the support of grammar schools and also transferred the power of appointing trustees from the Crown to the County Council. Whereas previously there had been a Crown appointed Board for all the grammar schools in a county, there was now constituted a Board for each school. The county still retains the power of appointing part of the trustee board except in cases

where municipalities are separated from the county. It will be readily understood why the power to assess was rarely exercised by municipalities who had no voice in the control of the schools. Thus it was that the schools were starved. Ormiston advised that municipalities having grammar schools must be compelled, and not merely permitted, to support them. In the Superintendent's Report of 1865, we learn that of the 101 schools in existence, fifty-two had to live on fees and fund grant alone. Over half the schools got no local support.

The very large increase in the number of schools had resulted from another clause of this Act which was the fountain-head of endless trouble. From 1855 to 1865, the increase of schools had been from 65 to 104. This remarkable increase resulted from the clause permitting the formation of union schools, a provision which made it easy to set apart a room or so in the common school building and draft off a few pupils. Furthermore a union board could exercise its right to assess for the support of both branches in that case and, of course, to levy funds for capital expenditure whereas a grammar school board could not raise a cent for building. The fact that many of them were housed in poor rented halls and empty shops is thus explained. The union road naturally seemed attractive. But what was the result? It was far from an educational gain. Sometimes the case was that of a languishing grammar school that had been called into existence by the needs of one or two influential families and having educated the children of these seemed likely to expire. Its life was saved by merging with the common school. Or the case might be that the trustees of a common school added a grammar school department. But they did this without increasing either staff or accommodations. Not infrequently there was only one master for both departments and the time he gave to his few classical pupils was filched from his common school pupils.

Up to 1871 the secondary schools of this province were professedly classical schools. Latin was considered the most important subject of study and next to it, Greek. Their function was to prepare pupils for college or professional schools and as only boys could be admitted to the colleges, the grammar schools contemplated the education of boys only. However many

of the smaller schools in order to keep the ship afloat had somewhat irregularly admitted girls. In 1859 Inspector G. R. R. Cockburn declared that a school should have at least twelve classical pupils in order to exist. The law at the time, demanded ten. So that to make up the quota the smaller schools both admitted girls and put them into Latin, thus committing two offences. Opinion was divided as to the propriety of allowing girls to attend, some leaders being strongly in opposition. Both Ryerson and Young were anti-feminists. The struggle was keen and has its interesting side. The first breach in the fort was effected when girls were admitted to give them an opportunity of studying French. The regulations of 1865 provided for this. Girls could be admitted on passing the entrance examination and their course would include the English subjects of the classical course and French but their attendance was not to be counted. The girls nevertheless took Latin and the next year an amendment permitted them to be counted, two girls to be valued as one boy. Of the 102 schools in operation in that year 85 were already co-educational. Statistics of the three years 1866-67-68 show that the increase due to the influx of girls was greater in Latin than in French, more than three times in fact. The reason is of course that a girl counted if she took Latin and not if she took French. A strong argument for the girls was that some of them were preparing to be common school teachers. Public pressure soon became so great that the Superintendent yielded, to the extent of leaving the decision to the local authorities. The Act of 1871 frankly made the schools co-educational.

This struggle was one of the unsettling influences that helped to discredit the classical tradition. Boys required classical training to enter professions and the arts course but girls, at the time did not. Another idea found expression, most convincingly by one of the Inspectors of the time, George Paxton Young and by Ryerson himself, namely that secondary schools in a new country of theoretically equal opportunities for all should have a wider aim than the classical preparatory school. In fact Latin should cease to be the *sine qua non* and substitutes for it should be found in the natural and physical sciences and in English, for the general student. It is difficult to overestimate the influence of the

great personality of Young. He combined an intellect of great keenness with wide and tolerant sympathies. He was equally equipped in mathematics, in psychology, in English literature and in the humanities, and by far the greatest thing that Ryerson did for the secondary schools was the selection of Young as Inspector. It was he who told us how natural sciences and mathematics should be taught and it was he who bade us look to the rich treasure of our own literature, chiefly for what he felicitously terms "the quickening contact with truth and beauty." Again it was through familiarity with our great books that the pupils must incidentally and gradually learn definite lessons in morals.

The laboratory method of teaching the physical and natural sciences in Ontario dates from the reports of Paxton Young. Practically no true science teaching had been done in the schools before 1865 and it took twenty years to secure a general acceptance of the right method and to equip schools with laboratories and apparatus. Even now it needs to be repeated again and again that a scientific fact is a dead thing, incapable of germinating in a boy's mind. Cart loads of such facts, as Young said, shovelled into the minds, will not educate. It is not the fact—useful though it may be—but the philosophic method by which the young experimenter reaches up to the fact that is all-important in education. The teacher must "make the pupil climb to the law through all the requisite steps by the use of his own eyes and hands" and thus he gains the two advantages that study of the sciences can produce in the youthful mind—namely the habit of intelligent observation and second, familiarity with the inductive method of discovering truth.

It was thus on the constructive side that Young's work meant so much to this province. There is no question that the greatest advance we have made in secondary education apart from technical education in the past half century is in the teaching of English literature and in the philosophic method in the sciences and other school subjects.

Such were the influences that brought about the transformation of classical grammar schools into English high schools where English, mathematics, the sciences and the languages would all stand on an equal footing. One may mention in passing that there was

a lively fear that Latin and Greek would soon disappear and to preserve these the Act of 1871 provided for the establishment of schools for the express purpose mentioned, to be known as collegiate institutes. Certain of the high schools were to be so named, if they maintained a staff of at least four masters and had sixty male pupils in the classics. An additional grant of \$750. was made to each. The original basis was found impossible to maintain as it resulted in forcing pupils in some of these schools to take classics in order to retain the status. Furthermore it was found that setting apart special institutions for the purpose was quite unnecessary and that the classics continued to be taught in the ordinary high schools. Thus since 1883 the distinction has been merely one of name.

It has been mentioned that the Act of 1865 permitted unions between common and grammar schools and that these unions were made chiefly on financial grounds. Inspectors Young, Mackenzie and Maclellan condemned this movement on every ground. What appears to have been a serious result was the facility with which improper promotions were made from one department to the other. The stimulus was such that no virtue could withstand it. A pupil in the high school department—that is subsequent to the Act of 1871—drew \$20 per annum of government grant for the board of trustees but if he were in the public school he was worth only 40c to them. It was a process entrancing alike to teacher and board to convert the base metal pupil into the gold. The uniform entrance examination with results revised by the inspector on his annual visit was no effective barrier to this conversion. The result was that the unfortunate pupil was cheated out of a good common school training and had no chance of getting anything worth while in the high school owing to lack of the necessary foundation. The extent of this trouble may be gauged when it is noted that 65 of the 104 schools were of the union brand.

A serious difficulty that the Act of 1871 got the schools into remains to be described. The Act was designed to better the method of distributing the grant which had been done largely on the ground of attendance; and so had stimulated in the way, just shown, premature entrance to the high school. The new Act proposed to pay a proportion of the grant on actual work done as shown by the results of a written examination. Several years

went by while a feasible scheme was being worked out. In 1875 the inspectors had matured a plan which was adopted by the Council of Public Instruction. The plan divided the grant into four parts.

1. A fixed allowance.
2. A part based on average attendance but the sum paid per unit was to be the same as for the public school.
3. A part on the results of inspection.
4. A part on the results of a written examination.

This was to be held when the pupil had completed half the course and so was called the Intermediate examination. Pupils who passed this constituted the Upper School and those who had not, the Lower School. The first examination was held in June of 1876, the three high school inspectors, McLellan, Buchan and Marling and four public school inspectors, Glashan, Tilley, G. W. Ross and J. L. Hughes constituting the committee that prepared the papers. The answers were read by these men assisted by four others appointed by the universities.

The results were surprising. Sixty schools out of the one hundred and four in operation passed no candidates. Again in December fifty schools passed none. Out of 1676 candidates in June only 234 were successful. This was taken to mean that many schools were not really doing secondary school work at all. Seven schools in this first trial of Payment by Results, as it was called, carried off one half the grant. The serious objection soon developed that there was no sufficient motive inducing pupils to take this examination and the whole burden rested upon the teachers. Accordingly the examination was accepted the next year as equivalent to a second class certificate so that all those who contemplated becoming public school teachers would take it. And so for a few years, strictly until 1882, the energies of most secondary school teachers were directed not so much to educate their pupils as to prime them for the examination, success at which meant income for the school. When this iniquitous system was discontinued, the second class teachers' examination took its place, not as a grant-earner but as a goal for the school's effort. From that time on in most schools the most numerous class of pupils in the third and fourth years has been girls preparing to become teachers. Would it be too strong a

statement to make that the aim of both teachers and pupils to pass this examination has preponderated over every other aim, including the aim to educate? If this is true, it is a serious indictment of our whole system and there is more truth in it than many will admit. This much may be ventured that Payment by Results bedevilled the schools for the seven years it was in vogue. It created in the public mind too great a respect for the written examination. It fastened upon many schools a vicious kind of slavery, the shackles of which have not yet been thrown off.

A distinction must be made between school and outside examinations. The school examination does not determine the character of the instruction but is designed by the instructor to show whether the salient points have been adequately grasped or not. It may thus be valuable to the student as well as to the teacher. Indeed it is only when the student has applied a principle or reproduced a set of related facts in writing that he feels sure of his ground. The case is entirely different with the outside examination. It does in many instances and ways determine the character of the teaching. It requires devotion to principle and a high degree of courage for a teacher in our secondary schools—I suppose this does not apply so much to city schools as to town schools which bulk larger as a civic interest—to keep his eye single, not to acquire the examination eye, so to speak. How easy it is to shirk, and say ‘You’ll never be asked about that, don’t bother with it’ or ‘It was on last year and of course you won’t have it this year.’ This is what may be called the examination eye.

A stranger to our system might well elevate the eye-brow here and ask ‘Is your whole time, then, devoted to preparing students for teachers’ or matriculation examinations? Have you no class of students other than these, none who seek to round off their education in your secondary schools?’ My dear sir, you have touched a tender point. The pupils you speak of have vanished long before the fourth year. We cannot hold them. Why we cannot is another story and it must be looked into. We defer it for the moment.

Two tendencies in our educational history may be noted, particularly from 1865 on—the tendency to centralize control and its corollary the tendency towards a rigid system. No man I believe, did so much to give this complexion to our pedagogical

machine as the Hon. George W. Ross whom I mention with all honor, though his ideal of a school system as a ladder, each rung being only a step to a higher one, and therefore satisfactory if merely a good step but with no thought as to whether it was also a good stop—this ideal I regard as wholly wrong and perverted; for it is framed in the interests only of the man who is bent on reaching the top rung—the university. And that means the interests of not one per cent. The other 99 may remain on the rung they have reached and make the best of it. It has not always been a very broad and satisfactory stopping place. Many of us teachers can remember the persuasive eloquence of the advocate of this ladder system. How beautiful seemed the road commencing in the Kindergarten and proceeding through the grades up to the fair gate named Entrance. The child with his ‘shining morning face’ was depicted as always looking up. And when he passed this gate there opened before him another pleasant and inviting ascent to another fairer and grander gate called Matriculation. Through this he went and ever upward to the splendid summit of graduation. But the orator failed to tell us that only one in a hundred reached this goal.

The rage for system omitted nothing. It got hold of the examinations. Every subject alike was regarded as suitable for percentage treatment. Some subjects can be exactly graded in this way and some cannot. Of the latter one may mention English literature and English composition, and composition less exactly than literature. All we can do in literature is to test whether the work has been read and if the student can explain certain difficulties. But whether he has absorbed the spirit and has been emotionally quickened thereby, we cannot test in this way. Long experience in examining English composition has convinced me that we delude ourselves when we attempt to reach the exact percentage value of a school composition. If we were not such slaves of system, perhaps, we should merely determine whether a composition is an acceptable effort or not.

Again the marks a candidate earns in any subject are rigidly given him, even when in the course of his answers, he shows ignorance of essential things. If he is able to translate the selections in Latin Authors he is sure of a pass, though his

answers to grammatical questions may show that he knows practically nothing about the subject. Anyone admits that the translation might be a memorized one, our range of prescribed work being so limited. These points are submitted merely as examples of an over-systematized scheme, not as a discussion of examinations.

The other tendency referred to, that of centralization, has resulted from what I have called the rage for system and both of course from political exigency. In 1876, a great change in education administration was made. From 1844 to 1876 practically everything had been under the control of Egerton Ryerson, the Chief Superintendent of Education, and the appointed Council of Public Instruction. During this long period of thirty odd years a great work was accomplished, a work that is a monument to Ryerson sufficiently grand to satisfy any human ambition. There were surprisingly few serious clashes with the government. Only towards the end and chiefly about the undemocratic constitution of the Council of Public Instruction did some bitterness develop. So in 1876, this body gave place to a committee of the Executive Council and the Superintendent to a Minister of Education. It is evident that the more rigid and uniform and centralized any undertaking becomes, the easier it is for a responsible minister to manage. Control of the educational destinies of this province is very complete and very minute. Local authorities may select certificated teachers, determine their salaries and provide accommodations, which must be acceptable to the department and there practically their liberties end. In the matter of textbooks, control has reached the limit in restricting pupils to one particular brand of blank exercise book, unless indeed pencils and pens are to be authorized. A teacher, therefore, has not the liberty of an ordinary mechanic in selecting the tool that best fits his hand. It is not to be denied that there are some advantages in this uniformity. But do not the disadvantages outweigh these? Some teachers like one treatment of a subject and others another, and each could do more effective work if he had the choice, but no choice is allowed him.

Again our system is such that every school teaches the same subjects out of the same books in all schools alike, whether in city or country. The curriculum is so crowded that for a principal

to introduce a new subject, even if the department permitted it, would be impossible, though the regulations mention new subjects as possibilities. We should have a not inept analogue of this situation if we supposed every factory in the country that produced a certain article to be under the same kind of central regulation and control so that only one kind of machine or tool could be used. Would it not result that the alertness of the worker for improved devices and tools would become deadened, competition for excellence would cease and the present efficiency greatly suffer? When everything is provided and directed individual initiative becomes atrophied and workers cease to care and therefore to know about their work in the right way. The most serious result is that our educational efforts do not receive the same impetus except incidentally that every other enterprise does, namely the impetus of the trained opinion and expert advice of the men who do the work. Some may think that expert opinion does not exist amongst the secondary teachers of this country. At least if it does, it is not enlightened. If they are right, there could not be a more convincing proof that we need more liberty. If men are not reading and thinking about their work, it is because they leave all to the powers above who may be depended on to *regulate* them aright. But if this body of opinion does exist as it unquestionably ought to, is it not a great national loss that it is not utilized, that no systematic way has been found to give it constant effect? There is one thing certain that liberty would awaken local interest in board and teacher alike and responsibility would produce power. Mistakes would be made of course but it is better even to make mistakes in a wakeful and alert effort towards betterment than to continue forever wearing blinds and answering the rein in a jog-trot that gets us no further on.

One may set down the early eighties as the period when our system crystalized. Central control, a small government grant, no longer in any way dependent on results, a uniform entrance examination, local support through a compulsory rate—although the law does not compel any municipality to establish a secondary school—uniform authorized text books and lastly a uniform curriculum which is a compromise between what the university de-

mands from matriculants and the Normal School from prospective teachers. All these features were then fixed, so that the subsequent history of this branch of education is mainly one of expansion and physical improvement within the bounds of the principles just detailed, until of course we come to the technical movement. Text books have been frequently changed always nominally to improve them, but often really the change has appeared to be a matter of business. The curriculum has swayed now to one and now to the other pole mentioned, but the additions and subtractions have been amazingly few in a period of nearly forty years. This fact is plainly attributable not to the everlasting perfection of the curriculum, but to the consistent singleness of our aim, to educate only teachers and matriculants. Of the total attendance in the first two years these are only a small percentage, but in the last year they constitute a very large one.

As we look forward this state of affairs should surely receive most serious thought. Let us ask ourselves if we are doing our full duty by the youth of the country when we so arrange their course of studies that the majority find nothing for them in our academic high school after the second year. One of the commonest reasons given for withdrawals at this stage is the statement that the pupil had no intention of teaching or going to college. I believe, therefore, that the high school needs to be made more self-sufficient and capable of rounding off a stage of education, with a curriculum suited to the needs of the student who enters upon his life's work from the doors of the high school. To this end the first step would appear to be the translation of the teacher class to the Normal school after the second year. There, conditions could be made much more favorable for them, as the curriculum would be framed exclusively in their interests and academic and professional training could go on *pari passu*. It would probably be found that they would reach a better standard in two years than they can do now in three.

Then the purpose should be to make the third and fourth years as necessary and as inviting to the general student who leaves under present conditions, at the end of the second year or earlier as it is now to the teacher student. This, of course, cannot be done without radical changes. The changes in the curriculum

would require very careful deliberation. The question must be faced as to whether girls and boys should in all subjects be treated alike; whether for girls a less extensive course in mathematics and in some science subjects would not be advisable; whether a greatly enriched course or courses in English literature and in historical topics is not demanded; whether it is satisfactory that a pupil can spend five years of his life in our secondary schools and never hear of a science of the mind, of the laws of human thinking, knowing and doing, or of the barest rudiments of economics, the meaning of money, exchange, etc. We must find out whether these things could be presented in such a way as not to be any more difficult than for instance the geometry and algebra at present taken in the middle school. And if so, whether properly constructed courses would not be more helpful to the general student, boy or girl, than some of those at present prescribed. Would they be less remote from his needs and interests than subjects which are wholly theoretical? Do we not on the whole require to influence the habits, tastes and modes of thought of our pupils more than we do? How can that be done? One can but call experience to witness that of all school subjects, English literature comes nearest to actually gripping the pupil and really influencing his action. Hence the suggestion that we go to the storehouse of our great heritage and bring more treasures into the schools. Every capable teacher of high school English must have experienced that highest satisfaction which can crown his work, namely the knowing that his pupils are actually forming tastes and habits of thought when brought into contact with the message of great works of literature. If he finds them reading in wider and wider range, if he finds them memorizing the passages which give them the keenest pleasure, if he has found them treasuring a precious volume and in times of gloom, as during the war in those dug-outs across the sea, steadying and soothing the harrowed mind with the solace of the some lyric or tragic flight of genius—then surely he knows that he has aimed aright and reached the mark.

One feels safe in suggesting that English literature should have a greater place in the high school of the future, both from experience already gained and from the consideration that it is almost the only subject of the curriculum that is wholly free from

tradition. The influence of tradition upon our selection of subjects and upon the treatment of subjects should be examined. We used to believe that the memory could be strengthened by exercise. The man in the street perhaps still believes it. The tradition is of more effect than the evidence of every day. Another tradition firmly held by parents generally is that education can increase the native capacity of the brain. Hence comes grumbling when we fail to do this. Education should be able to turn any goose into a swan. It seems of no use to retort that people are born that way, the tradition is too strong. Doubtless also there is something traditional about the theory of mental gymnastics. In gymnastics proper young men lift many useless weights, run many useless miles, expend uselessly vast stores of energy because they have a super-abundant supply and a keen zest. Without these their games would become perfunctory and therefore valueless. Are not the energy and the zest indispensable in the other realm? Even untangling tangles that have been made with malice prepense, given the energy and the zest, will be effective—not of course in increasing the native capacity of the mind, but only in the use of the powers that exist therein. Without the energy and the zest, I claim the formal disciplinary subjects are useless. They are worse. They merely numb and befog the mind. Reformers of our curriculum must enquire how the mind energizes over a problem and whence comes the zest. I mean the conditions of effective energizing. When the correct answer to this question is agreed upon we shall be on the right path to our new curriculum untrammelled with the weight of tradition. The answer to other questions will depend on this: As for instance the comparative advantage of a rigid course for all pupils, boys and girls alike, over the system of electives, so common in the United States; or the advantage of keeping a pupil grinding at a subject for which he has no aptitude nor taste. Let us suppose the task is learning the piano. This accomplishment is justly held to connote a profound mental as well as emotional discipline. The prerequisites are the energy and the zest. Without these the work is agony both to the performer and his friends. It is idle to call this education. Are we not often doing that very thing in the high schools of this country? Some hold that the pupil who is poor in a sub-

ject needs that particular training to balance him; but does experience in dealing with such cases in the schools support this position? The usual result seems to be the early retirement of the pupil. He who has no mental aptitude for a certain subject will have no taste for it and will therefore not really energize his mind through it. Besides modern life is complex and demands everywhere that the most be made of special aptitudes. Should we not be following a sounder science, if we tried to discover those aptitudes, and stressed for each pupil the subjects in which he excels? For one set of duties our preparation, it is true, must be the same for all, namely for the duties of citizenship. English literature therefore and history, both general and on special topics with biography must be demanded of all. Our aim must not be pedantry and polish, but the making of good citizens whose education will not leave them non-plussed as to where to fit in, but will have connected capacity with opportunity and will have furnished them with what has been called the directive clue.

Whatever changes are made as the result of a painstaking and unprejudiced investigation of these questions, they should be made in the interests not of a small class, as has been usual, but in the interests of the great majority who finish their education in the high school, to the end that we may retain through the fourth year that large body of pupils, who, having no interest in the work we now offer, drift away after one or two years in the school. We have up to the present clung to the idea which actuated the early founders and supporters of the grammar school, that the schools were for a class and not for all. We have made them free and equally accessible, it is true, to all who care to use them, but our courses of study have pretty well restricted their privileges to a class.

As to the entrance examination the necessity of a fixed minimum of attainment is as necessary for a high school entrant as for a university matriculant. To insure this it was found necessary to develop a written examination, the papers for which are centrally prepared and uniform for the whole province. This standard soon became as high as could well be reached by pupils of the senior fourth reader grade. Then the usual thing in our examination loving country happened. It became at once the end

and aim of the public school course and its subjects were reviewed from this new stand point. Wherever the syllabus seemed inadequate to a rounded out primary education, it was strengthened until at last ten written papers and one oral were set. Three of the subjects were subsequently dropped but history, one of these, was thought to be neglected and last year it was restored. As a teacher of long experience, I have found that the present examination is much too ambitious. It may do very well for a public school leaving test. I am not discussing that, but it is not altogether what we want for entrance. It demands far too much arithmetic, too much technical grammar, too wide a range in geography and history while in writing and drawing it does not do enough. It may be asked if we are justified in complaining because our pupils are too advanced, too well-prepared. They are not. I merely claim that their attempts have been too ambitious. Grammar with them is too often a mere jargon of terms. In arithmetic all we require is facility in the ordinary mechanical operations. What we complain about is that pupils are fourteen or fifteen before they reach us. They are from one to two years too old and having got into the mind a mass of verbiage, little understood in some subjects they are not in as desirable a position as they would have been if they could have broken off and come to us sooner. It is to be hoped that the public school of the future will be so organized that this improper compromise will cease. Give us we ask, an entrance test that is purely that and nothing else. But an entrance examination we must have, at least outside of urban communities where there are experienced entrance teachers and where these have also plenty of backbone.

More must be done in the high school of the future to adjust the institution to the community it serves. To-day our system insures that our secondary schools are all alike in city and country. Their subjects, text books and aims are the same everywhere. A beginning would be to attach a school garden to every high school in country districts and let the science work centre around the garden interest. Elective courses would make it possible to stress such as would be of most service to the particular community. Then in this connection is it not disappointing that no city requiring more than one high school has not made the experi-

ment of a boys' school taught by men and a girls' school taught by women? Such an experiment could not be made in one-school towns. It would be too expensive. It is true that many women follow the same callings as men, but the majority become home-makers and our present curriculum ignores almost entirely the needs of this most ancient, honourable and natural calling.

Liberty therefore and diversity must be the new note of the new school.

STANDARDIZED TESTS FOR MODERN LANGUAGES.

I. GOLDSTICK, LONDON.

Must I open with an apology? The recency of the branch of educational research here dealt with, seems to warrant one. The tendency to look askance, or, at most, to smile condescendingly at anything that smacks of the novel and unfamiliar, and unhesitatingly to brand it a fad is but too strong in most of us. And so the importance to the educationist of the standardized test must be made patent before attempting to apply it to the subject of moderns.

The search for quantitative measurements, true objective standards for gauging attainments in education is in consonance with the tendency in the sciences to lay increasingly great stress upon objective indexes and to detract from the significance of subjective estimate. If education is to lay pretensions to being a science it must employ the methods of science. The standardization of tests is an attempt to measure school products more accurately than they have been measured hitherto, to make judgment in things educational less arbitrary. But the standardized test claims to be more than a mere standard for measurement; it is an important part of its function to call attention to shortcomings in educational achievement and to suggest remedies.

But do not examinations serve as true criteria, it will be objected—are not they objective measures of ability? Until recently few ventured to dispute these claims made for the excellence and precision of examinations. The traditional school marks have indeed been the only basis for the promotion of students and the only measures for judging of their merits or deficiencies. Until recently very few have called in question the trustworthiness of examinations.

This solemn trust, in the infallibility of examination marks, however, has now been shaken. Investigations of the subject have established the fact that school marks are inaccurate, not always reliable. They have shown not only that different teachers assign

different values to the same degree of ability, but that even the self-same examiner is apt to mark the same paper differently at different times.

Starch¹ records some interesting instances of variability in rating. Facsimile copies were made of two examination papers in English, written by two first-year high school students. These papers were then marked by 142 teachers of English. "The first and most startling fact brought out by this investigation," says Starch, "is the tremendously wide range of variation. It is almost shocking to a mind of no more than ordinary exactness to find that the range of marks given by different teachers to the same paper may be as large as thirty-five or forty points." Thus in the case of the first paper, while one teacher valued it at sixty-four per cent., two teachers assigned the value of ninety-eight per cent. to it. The second paper was marked all the way from fifty to ninety-eight.

Lest it be objected, in defence of the traditional method of grading students, that English does not lend itself to that precision in evaluation as mathematics, for example, is capable of, an investigation similar to that above described was carried out, by Starch and Elliott² with a paper in geometry. This was marked by 118 teachers and the divergence in the marks assigned proved even greater than in the case of the English paper. A few samples of marks will prove of interest: one teacher marked the paper twenty-eight, one twenty-nine, one thirty, etc., five marked it fifty-three, five sixty-four, three valued the paper at eighty, while two teachers gave it ninety-three per cent.! The variance in the geometry paper is accounted for by the different values assigned to the various steps in the work, such as the methods of solution, etc.

Nor could a better case be made out for history. In this subject Starch and Elliott found the range of marks to be from forty-three to ninety-two. The probable error in each of the three subjects referred to was 4.4, 7.5 and 7.7 respectively.

¹Daniel Starch, "Educational Measurements," p. 4.

²Ibid.

Other inquiries to determine the degree of reliability of teachers' marks have further corroborated Starch and Elliott's findings. Various investigations carried out by R. E. Carter, F. J. Kelly, F. W. Johnson, and others have established the utter lack of consistency among teachers in the evaluation of the same abilities. Professor Monroe¹ summarizes his conclusions as follows: "It is clear that when different teachers measure the abilities of the same pupils in the same subjects by means of examinations and estimates of recitations, they give different 'grades.' Hence, we must conclude that teachers' marks are unreliable, that is, they are in general inaccurate measures of the abilities of pupils."

Of course, the strangest thing of all brought to light by workers in the field of educational measurements is the fact, already referred to, that the same teacher will show inconsistency in his own marking. Thus teachers in English and Mathematics on regrading their own examination papers, after some interval, showed a variance in their marks as high as ten or fifteen per cent.

In a word, examination results in any subject do not give us the accurate information which is sought. Another method then of testing students' abilities must supplant or at least supplement the traditional one. The new method of testing students' abilities is by means of the standardized scale. The standardized scale purports to give a precise picture of the student's status in the performance of a given educational function, and holds the same relation to the traditional examination mark as a refined scientific standard to a crude measurement. It must, however, be borne in mind, at the outset, that the standardization of educational tests is still undergoing experimentation, that the matter is still in its initial stages, and that in its application to but few subjects has any approach to finality of form been made.

Before proceeding to my theme proper, standardized scales for moderns, I shall touch on two more aspects of the larger subject: (1) a brief characterization of the tests in general and (2) a description of how they are devised.

¹"Educational Tests and Measurements."

The essential respect in which the standardized educational test differs from the ordinary school test is in those characteristics in which the latter has been found wanting—consistency and precision. If the test is to yield results that are scientifically accurate, all variable elements must be removed from it, so that the self-same result is obtained by whomever the test is used. The test, then, must possess objectivity; there must be unanimity in the rating of the results. Further, the various parts of the test must be either of equal dimensions or else they must be graded in a rising scale of difficulty. A good standardized test is also characterized by brevity and ease of application, making its use possible, in some cases, even when the examiner's knowledge of the subject is not extensive. The reliability of the test, finally, must admit of corroboration by other methods.

The method of devising a standardized test will next be briefly described. The spelling test, because of the extensive experimentation in this subject, will afford a good illustration. The construction of an instrument for the measuring of ability in spelling pre-supposes, to begin with, a definite aim, that is, agreement by competent authorities as to what it is desired that the learner achieve in this subject. Agreement being general that the achievement to be sought should be ability to spell automatically those words that are used most frequently, the investigator's task is to ascertain these words. L. P. Ayres¹, one of the most noted workers in the field of educational measurements, identified the most commonly employed words from their occurrence in correspondence, newspapers, and standard literature. The total number of words thus found was 368,000. These occurred in the written work of 2,500 persons. From these 368,000 words Ayres culled out a list, of one thousand words that were found to be used most often, that is, which recurred more times than any other words. In an investigation carried out by N. F. Jones² for the purpose

¹L. P. Ayres, "Measurement of Ability in Spelling" (Russell Sage Foundation, New York City, Division of Education. Leonard P. Ayres, Director).

²Jones, N. F., "Concrete Investigations of the Material of English Spelling" (University of South Dakota. Bulletin, 1913).

of securing an exhaustive list of words used by pupils, 75,000 essays were written by 950 pupils from four different States. Although the words used in the compositions aggregated 15,000,000, only 4,532 different words were found in them.

After having secured a list of words, the next step in the process of devising the scale is to determine the relative difficulty of these words, for obviously, in scoring a higher value must be attached to difficult words than to easy ones. The relative difficulty of the words is ascertained from the relative frequency of their correct spelling by pupils. In experimenting with his list of 1,000 words Ayres obtained an average 1,400 spellings for each word on the list, or a total of 1,400,000 spellings. The subjects were 20,000 children in eighty-four cities in America. In their present form Ayres' "Measuring Scale for Ability" in spelling consists of twenty-six columns of words, all the words in each column being of equal difficulty and the words of successive columns standing in equal relation to each other in point of spelling difficulty. Further, the extensive data secured has made it possible to compute what per cent. of correct spellings from a given column may be expected of children of the various grades.

I have described the Ayres' Spelling Scale rather fully, as being illustrative of the method employed in the devising of measurements for school subjects in general, and as showing the amount of patience which the careful investigator lavishes upon a test in order to make it absolutely trustworthy.

As indicative of the increasing significance that is being attached to standardized tests one need only mention the fact that measurements in the various school subjects are being multiplied, and that the subject has been engaging the best educational thought. Many American cities, for example, now have departments of "educational research and efficiency," which are largely concerned with the preparation, testing, and improvement of educational measurements. Two years ago, there was created in the University High School of the University of Chicago, a *Committee of Results*, "charged with the responsibility of stimulating testing throughout the school, and of co-ordinating work done by

the various departments."¹ The *U. S. Bureau of Education Bulletin* devotes a section monthly to the enumeration of newly published tests.

The disproportionately lengthy preamble to the "burden" of my theme has seemed necessary, owing to the comparative recency of the subject here dealt with, acquaintance with which does not yet appear general, and because the chief features of a scale for moderns must, in the main, be patterned after the model of scales in other subjects that have been worked out.

There has been a dearth of scales for moderns. Only one has been devised, that by Daniel Starch, unless others have been perfected very lately and have not yet been taken note of in recent bibliographies. Starch's French and German tests are identical in character, so that a description of either will reveal the essential characteristics of both. A description of Starch's "Measurement of Ability of French" follows:

The tests are of two kinds, one being designed to ascertain the extent of the student's vocabulary, the other to measure his ability to read French.

The Vocabulary Test consists of two lists of 100 words each; the words in each list are arranged in alphabetical order. Following each list of words are the English equivalents to these, but also arranged alphabetically and so, of course, in a different order from the French. Each of the words in either list is numbered from one to 100. The student tested is directed to write, opposite each French word that he knows, the number of the English equivalent. The student's score is the average of the words of the two French lists of which he designates correctly the English equivalents. The author tells us that the "words were selected by taking the first word on every sixth or seventh page alternately in Spiers and Surenné's large French-English dictionary." These pages were chosen because they "gave 100 words scattered at regular intervals through the entire vocabulary. List I was obtained by taking the first word on pages 6, 13, 19, 26, etc. List II was obtained by taking the first word on pages 7, 14, 20, 27, etc."

The author claims three advantages for his method of selecting the words. "First, it gives a representative and uniform sampling the entire. . . vocabulary. Second, the score

¹E. R. Breslich, *School Review*, October, 1919.

obtained has a definite significance in the sense that it indicates the percentage of words of the entire vocabulary that a person knows. If a pupil knows twenty-five words of each list, it means that he knows twenty-five per cent. of the entire vocabulary. Third, any number of additional lists that may be desired can be made up by following the same plan of selection. It has been found in connection with the English vocabulary test and the spelling test that this method of selection yields lists which do not differ from each other in difficulty on the average by more than 2.5 per cent., and that an average obtained from two lists gives a very reliable score."

Professor Starch has adopted the plan of matching the equivalents of the French words in preference to requiring the words to be defined, for two reasons. In the first place, this method secures perfect objectivity, and secondly, it makes scoring possible even by one who knows no French. The possession of a key would be the only thing necessary.

The Reading Test "is composed of a series of thirty sentences, arranged roughly in the order of increasing difficulty. The sentences were selected from first-year texts and from the readings usually covered in schools." The author promises stricter standardization of these by more extensive experimentation than they have as yet been subjected to, when they "will be arranged in the form of a scale of steps of known value." The student's score would then be the most difficult step or set "of sentences passed." A few examples of the sentences, of which there are thirty, follow:

1. Qui.
2. J'ai.
5. Vous êtes.
8. Le chapeau du garçon est neuf.
12. Le livre appartient au professeur.
17. Garçon, passez-moi du lait, je vous prie.
24. Notre mère veut que nous ne mangions jamais entre nos repas.
29. En ce moment, un mouvement se fit tout à côté du président.

30. Du reste, il était demeuré aussi simple que le premier jour.

Such, then, are the general features of Starch's tests. Their defects will be pointed out in the course of the following discussion of a proposed standardized measurement for French and German.

In deriving a scale for measuring ability in French and German one must be guided by some assumption regarding the aims in these subjects. The nature of the tests will be conditioned by the definition of the aims. If these have been agreed upon, the next step must be to resolve the specific abilities required for the subject into their elements and devise scales for measuring these.

What sort of knowledge do we hold essential in French and German, the acquisition of which is to be the business of the High School student in Ontario? A discussion of this topic is, of course, beside the mark in the present paper. I cannot help remarking, however, that the type of knowledge in French that we are endeavouring to impart to the students of this province, I fear, is creating a thorough distaste for the language. The dead monotony of the grammar drill, upon which examinations compel us to lavish most care, is not calculated to arouse a healthy interest in the French language, literature and traditions. The results obtained from our four years of instruction in French seem to be lamentably inadequate. The High School graduate is not able to read even a moderately easy book in the French tongue and has practically no acquaintance with French institutions. Of course, the spoken language is a *terra incognita* to him, and original expression in the language in writing is not to be thought of, despite the fact that the greater portion of his time has been devoted to an attempt to master this side of the language study. And it is the undue prominence given to translation into French that is the cause of the shortcomings in the results. A desirable re-organization of the course would relegate to a position of subsidiary importance the item of teaching grammar by means of translation of English into French. The position of eminence would be given to the reading of the French text with attention also to the *viva voce*. The banishment of the vernacular is not advocated—the writer is not a professed Direct Methodist when

regard is had for conditions in our province. Oral French is to be used freely, not principally for the purpose of teaching the pupils to speak French, for admittedly this would fall short of success, but for the purpose of making French *real* to them. The thing that should be striven after and to which all else should be subordinated, ought to be an ability to read French with some facility and the acquisition of an abiding interest in things French. But all this is polemical and almost a digression from the subject.

Having regard for the present requirements, the tests to be standardized will measure the student's ability to read and write French and German and the extent of his vocabulary in these languages.

The vocabulary test will differ from that prepared by Professor Starch, both in the method of selecting the words and in the manner of answering. In the selection of the vocabulary counsel should be taken with Ayres and Jones whose spelling lists have been described, as well as with Hanus and with Henmon who have devised tests for Latin. In Hanus' vocabulary tests, for example, no words are used "which occur less than one hundred times in Cæsar and Cicero." The experimenter's task, in the first place, will be to identify the minimum French or German vocabulary with which acquaintance is desirable. Extensive experimentation will reveal the degree of familiarity possessed by the students of modern languages in Ontario with these words, and this information will serve as a basis for grading them in the order of difficulty. Starch's alphabetical arrangement of words is a veritable maze from which the pupil can cull out only a word here and there, and makes the duration of the test inconveniently long. Should the order of difficulty be observed in the arrangement, the student tested would reach a point beyond which it would be unnecessary for him to try, and thus much time would be saved. In striving to make his vocabulary tests objective Prof. Starch has also made them objectionably mechanical and, what is worse, unreliable. The device of matching the English equivalent to the foreign word manifestly leaves room for fortuitous hits, and so is not a true measure of the student's actual knowledge. The element of pure conjecture is practically eliminated when the English translation of the French or German word is required.

To resume, then, the proposed vocabulary test will consist of a group of words, selected from a list of words that are conceded essential, and the words will be arranged in the order of rising difficulty, as determined by experimentation on a large scale. It may be found desirable also to devise a test for measuring the student's ability to render English vocabularies into the foreign tongue.

If one were given to revolutionary tendencies in education, one might suggest reading measurements for French and German, parallel in character to those employed for ascertaining the subject's ability to read the vernacular. The test would consist of a number of paragraphs in the foreign language, experimentally graded according to difficulty, and the pupil's comprehension of these would be ascertained, not by means of a translation, but either by requiring him to reproduce the ideas of each paragraph into English, or else answer certain prepared questions that would reveal the extent to which he understands the matter read. Only one selection must be tried at a time and the reproduction or the answering of the set questions is to be in the absence of the original. The scoring in either case would be by means of a prepared key. Incidentally this type of test is suited not only for ascertaining the subject's degree of comprehension of the foreign language, but it can also be adapted to measuring his speed of reading, which is as true a form of his achievement in the subject as comprehension of the text.

The translation method, however, has also much to recommend it. It is, for example, suited for more accurate scoring. Whatever method of scoring is employed, the reading test will consist not of disconnected sentences of the type prepared by Starch, but of concise selections that are complete in themselves. Only such furnish a true index of the pupil's comprehension of the foreign language.

A true measurement of the pupil's ability to translate into the foreign language will be supplied by English sentences, likewise experimentally graded in the order of growing difficulty. The student's score will be that sentence which he is able to put into French or German with not more than, say, two errors. It will be readily granted by teachers that this will constitute a desirable

supplantation of the so-much-per-sentence mark by which candidates often obtain partial credit for sentences that would convey absolutely no coherent meaning to a Frenchman or a German. The scale proposed has the advantage of admitting of rapid scoring, since the method precludes the necessity of reading the answers beyond a number of sentences in which more than the pre-agreed admissible number of errors are found. Nor will it be necessary for the candidate to attempt them all. Further the same test will serve for all the years. Experiment will have shown what set of sentences are passed by the median of a given high school year. The scale will thus furnish accurate information; the result will reveal the subject's precise allocation in translation ability, stated in terms of High School years.

Should it be desired to measure specifically the degree of the pupil's knowledge of the grammar of the foreign language, various types of completion tests might be devised, i.e. sentences in which omissions are to be supplied by the student.

The sanguine teacher of modern languages might go the extent of picturing in his fancy a condition reached in our province when it will be found necessary to devise scales to test the student's power of original expression in the foreign language and his comprehension of the spoken speech. A scale for the former can be fashioned on the pattern of the English composition scales such as the Hillegas, the Harvard-Newton: or the Willing Scales, while standardized dictation tests will measure the latter with considerable exactitude.

The first business of the experimenter, however, will be to perfect the three essential tests above described—the vocabulary test, the reading test, and the translation test.

We are to look for the perfection, by the future investigator, of some such scales as here outlined. Such scales if skillfully executed and scientifically standardized will furnish that objective precision in the measurement the student's achievements in French and German which the traditional examination has been deficient in.

But accuracy in gauging the pupil's status is not the only merit that is claimed for the standardized test. It will, in addition, be an instrument for diagnosing the character of one's teaching

and consequently will serve as a corrective for one's method and the matter taught. It will not only show the teacher of modern languages what relation his classes bear either to the average or the best in the province, but will also indicate their specific shortcomings, if any, which can then be remedied. For this purpose the test must be so constructed as to isolate the various elements of ability involved in the acquisition of the foreign language. The Standardized Tests for Modern Languages will be at once diagnostic and remedial.

NATURAL SCIENCE SECTION.

AN ACRE OF WOODLAND—SOME OF ITS PROBLEMS.

PROF. C. D. HOWE, FORESTRY DEPT., UNIVERSITY OF TORONTO.

I understand that the Science Masters of Ontario wish to work out some plan for organized and sustained research work and I come to you this morning with some suggestions from one field of the many possibilities that lie before you, namely, the trees and the forests.

In the beginning I wish to assure you that investigative work of high order of accuracy and value may be carried on without the use of highly specialized instruments or extensive laboratory equipment. The fundamental requirements of successful research lie in the character of the mind, not in the character of the instruments at its disposal. The men who laid the foundations of biological science, and I think also the founders of the physical sciences, did not use complicated instruments. Darwin is said rarely to have used a compound microscope.

Notwithstanding the enormous quantity of highly specialized research which has been carried on in our biological laboratories in the past ten or fifteen years, or more properly because of it, many obvious things in the life of animals and plants remain to be investigated. There is still plenty of work for the careful observer of the macroscopic structures and of the habits of living things. In fact, I think much would be gained for science, and certainly much in the enjoyment of life, if we could call back and reinstate the good old-fashioned naturalist of our fathers' day, a man who was a keen and accurate observer because he had a sympathetic and understanding heart in the presence of the manifold manifestations of life. His heart was sensitive to the cosmic urge of re-awakening life in the spring, his ear was attuned to the melody of the birds and his eye was delighted by the procession of the flowers because to him all life was a part of the mysterious cycle to which he himself belonged.

We cannot call back the all-round naturalist, but we can perhaps re-create him and help him to regain his status among scientists. In order to re-create him, however, I fear we would be com-

pelled to lay none too gentle hands upon certain school curricula that have become almost sacred through use and age; courses that deaden the natural enthusiasm of the student because of the overwhelming mass of details to be absorbed—and often unrelated details at that, thus becoming a mere tax upon the memory. A jaded and over-worked brain will never develop enthusiasm and much less the sustained enthusiasm necessary to carry interest in a subject beyond the confines of the class-room.

It is not my purpose, however, to discuss this subject. I only mention it to disclose my point of view toward research work and to make clear why I believe that any university graduate who has an inherently inquisitive mind, a discriminating sense of values and the mental quality of persistence can carry on accurate and valuable investigations with the aid only of the simple instruments of everyday use. I am sure this statement would apply to the study of plants and I think it would to other lines of the so-called natural sciences. Nor does the field of investigation need to be extensive. A single acre of woodland intensively studied would present many problems for solution. In fact, I think a scientist might spend his whole life of investigation on a forest acre and still not reveal half its secrets. The facts necessary for the solution of some of the problems, however, would extend beyond the acre and that is why an organization of science masters would be serviceable in such work. Each investigator would discover facts that would help another. Certain problems would require simultaneous observation in different parts of the Province. During the past few days, for example, we have all been interested in the flowering of the silver maples and the purpling of the elm trees. When do silver maples bloom in Essex county, in Peterboro and Prescott, or in other words what is the influence of latitude on the time of flowering? We don't know beyond a generalized statement. We cannot answer that question by actual observation through a series of years at definite stations for any one of our forest trees. By making records of this one thing alone in various portions of the Province your association of science masters could make a definite and valuable contribution to our knowledge of the life history of the Ontario trees. The same thing applies to the appearance of the leaves in the spring and to their going in the fall.

Suppose the acre you select for investigation contained some white pine trees or still better it were a pure stand of white pine. You know white pine is one of our most valuable crops in this Province. In the past fifty years it has yielded us approximately \$75,000,000 in revenue, which means that it has reduced our taxes by that much. Besides this, it has maintained thriving industries and it has brought about the distribution in wages of close to one billion dollars since Confederation. A very valuable crop; a crop that had we been wise we would have perpetuated in a continuously bearing condition, but instead we have reduced it to a condition perilously near exhaustion. In the near future we shall rebuild at great cost what we have destroyed, but before we can do that wisely and economically we must know some fundamental things about white pine which we do not at present know—and this is where you science teachers can help; you can make valuable contributions to science and at the same time aid in promoting the forest wealth of the Province.

In the first place, we have no definite record of seed years. You know white pine seeds abundantly only at intervals of three, five or seven years. Not only this, but seed production is some times local. It may be abundant in the Ottawa valley and not in the Parry Sound District, or still more local; it may be plentiful in one county and not in an adjacent county. A series of observation points south of the Nipissing and Parry Sound Districts would yield interesting and valuable information in regard to the seeding of white pine. As our reforestation work extends and develops, as it is destined to do, the available seed supply will become an increasingly important factor. At the present time there is no available supply of pine or spruce seed. We could not begin extensive reforestation plans this coming season, if we wished, for there is nothing to start the forest—at least to start white pine and spruce forests. We shall have to wait until nature produces the seed. Will it be one year, two years or three years? We don't know. We would have known, however, had there been a definite record of seeding through a series of years at various points throughout the Province. The science masters are the men who could maintain such records.

It would be of considerable practical importance to know how much seed an acre of white pine forest would yield; yet we don't know and we have no data even for the basis of an estimate. Tree seed production follows the same laws of supply and demand as does wheat seed production. In years of abundant supply the seed will be cheap. Those are the years, other factors being equal, when money spent in reforestation will result in the largest extension of planted areas. Foresters should know when those years are coming and make their plans accordingly. An association of science masters could act as a clearing house for such information. In case of white pine which requires two years to mature its seed, the teachers could notify the foresters of the prospects of a heavy seed year at least a year in advance.

Still other problems in regard to seed production present themselves. For example, at what age does white pine produce germinable seed; what is the influence of age of tree upon germinating power and vigor of seedlings; are seeds grown in the open in full exposure to light better than those from trees in the interior of the forest; what is the relation between the vigor and health of the tree and seed production; do large seeds produce better seedlings than small seeds; do seeds from a certain portion of a tree make better seedlings than those from another; do seeds from Northern Ontario produce better results than those from Southern Ontario? We are beginning a period of extensive planting of white pine in this Province and we should select our tree seed just as carefully as we select seed for agricultural crops. As yet, we have not the data to do this intelligently, but the science masters could carry on investigations which would render valuable aid in this respect. I speak of the future planting of white pine deliberately because I do not share the prevalent view in some quarters that the blister rust will prevent its use for such purpose. The blister rust has not in the past and probably never will cause such serious reduction of white pine timber values as has already been caused by several less widely advertised diseases to which the tree is subject.

I have taken the white pine as an example of seed production studies because the practical application is a little more apparent, but in fact as time goes on we shall need such investigations upon

all our forest trees. The cedar and hemlock, spruce and fir, the birches and maples, the beech, and the various kinds of oak, the poplar and willows, all present problems of seed production worthy of scientific investigation.

When you have become interested in the problems of seed production I am sure you will wish to study the fate of the seeds that are scattered upon the ground. What are the best conditions for a natural seedbed for the various species of trees in our forests? This is basic and fundamental knowledge to anyone who wishes intelligently to reproduce the forest by natural regeneration, yet we have not such knowledge for a single Canadian forest tree. There are many opinions; there are many casual observations on the subject, but a detailed study of a natural seedbed extending through the growing season in Canada; a careful observation of what really takes place when the seeds fall to the ground and germinate we entirely lack.

Since the germinating periods come in the spring and fall when schools are in session, such studies might be too exacting of time for a science master, but by sowing the seed himself he could start some experiments on the subject any Saturday afternoon. He might, for example, sow some seed on top of the leaves and litter on a square foot. On an adjacent square foot he would scrape the loose material away, exposing the compact layer of partially decayed leaves and sow the seed upon them. On the next plot the humus layer would be exposed and the seed placed upon it and finally all the vegetable material would be removed down to the mineral soil and the seed sowed upon that. This experiment could be repeated on different kinds of soils, in various degrees of shading by the forest cover, and on slopes of varying exposure. These plots could be protected from birds and rodents by turning down the edges of a square piece of fine meshed wire and forcing them into the soil to a depth of several inches.

Another problem of great practical importance lends itself to simple experimentation and as yet no attempt in Canada has been made to solve it. I refer to the length of time forest tree seed may remain buried beneath the leaf litter or in the soil and still retain its germinating capacity. Those who have studied forest regeneration on severely burned areas have been puzzled by the

presence of thickets of small trees from five to ten years younger than the date of the fire which killed all the seed trees. Where did the seed come from that gave rise to the dense stands of young growth? An investigator in one of the western states has found that the seed of Douglas fir may lie in the soil for six or eight years without losing its germinating capacity. It may be that seed of some of our Eastern trees can do the same thing and that several crops of seed lie in the soil ready to form a new forest when the old is removed by fire or by logging operations. If this were demonstrated in case of our commercial trees, it would greatly modify our present views as to the proper way of handling forests and the actual conditions in this respect could be revealed by simple experiments. One of them would be the sowing of measured quantities of seed on the forest floor and the determining of the time elapsed until all the seeds germinated. Like the others just mentioned, these seed plots could be protected by fine meshed wire and several of them could be established on a Saturday afternoon. After they were once made, the plots would not need looking after more than twice a year. Thus investigations, whose results might have a far-reaching influence on methods of the natural regeneration of our forests at the expense of comparatively little time on the part of the investigator, could be carried on. Patience to carry the experiments through several, perhaps five or ten years would be the chief requisite.

When you have become interested in the germination conditions of some tree seed on your woodland acre, I am sure you will wish to follow the career of the little trees that succeed in establishing themselves. In what month does their growth actually begin and how long does it really continue; does the height growth begin and cease before the diameter growth; do trees grow faster at night than in the day time; what is the relationship between growth in diameter and height and the number of trees on a unit area; what effect does the presence of woody undershrubs have upon growth; taking trees of the same age and in the same kind of soil do different intensities of light exposure materially influence height growth? The answers to these questions would help a forester, but we don't know them as the result of actual experimentation in Canada. Science masters here again could

make valuable contributions to our knowledge of such matters, and they would not need any delicate and complicated instruments. A steel rule and a pair of small steel calipers would yield results worth while.

If one had access to weather bureau records, or still better could devise a simple rain-gauge, he would find a very interesting and valuable study in the growth rate of young trees in relation to the amount of rainfall—shall we say of the same season or the previous season? If a science master happened to be located near a lumbering operation or even near a farmer's woodlot, he would find much of interest and value in studying the annual growth rings on the stumps. The rings on nearly every stump show periods of suppression. By the aid of weather bureau statistics he could find whether the periods of deficient growth had any relationship to periods of deficient rainfall. Permanent impressions or growth rings can be quite readily made by smearing ordinary blotting paper with powdered graphite and pressing the paper thus prepared firmly from the circumference to the centre of the stump. A coat of shellac protects the impression from wear. One could make a goodly number of these impressions on a Saturday afternoon, take them home and study them in conjunction with the weather records at his leisure.

You are familiar with the expression that nature scatters seeds by the tens of thousands, produces young by the thousands, but allows only a few to live to ripe old age. Some years ago I collected ten pounds of seed from a single white pine tree growing in the open, or in other words in one seed year that tree produced at least 250,000 potential pine trees. Let us suppose that the tree would produce ten such crops in its life time, that would result in 2.5 million potential offspring, yet if only one of them were alive to replace the mother tree when it died nature has fulfilled her purpose. One frequently finds young pine, spruce or balsam in the forest at the rate of twenty, sixty or even 100,000 to the acre, and yet by the time these trees reach a foot in diameter there may be less than 200 of them left on the average acre. We have general statements like this, but we have relatively few records of conditions as the result of careful stock-taking on a definite area. We need more actual statistical information on the normal death

rate in the forest as the trees pass from seedlings to maturity. It is not necessary that you should wait for your acre to grow mature trees before you complete your observations. You could count the trees in pure stands of different ages in your locality and arrange them in sequence. However, I think you would find it worth while to study a square rod intensively for five years. Each tree could be labelled and numbered and its condition noted from year to year. The younger the trees in the plot, the more rapid would be the changes.

Many things besides the normal death rate would be revealed from such plots. For example, the relationship between the density of the small trees on the plot and the rate of pruning. In the case of the conifers, is it true that one whorl of branches dies and one whorl is produced each year? When is the death of the branches made manifest, at the beginning, middle or end of the growing season or during the non-growing season?

In your study of tree seedlings, I am sure you would notice and become interested in something that has attracted my attention for several years, that is, the occurrence of a few trees that grow much more rapidly than their neighbors. If you had a square rod plot, containing 100 trees under observation you might find one tree that was the same age as the others, but twice as tall as the average. It would be a very valuable piece of work to keep such trees under observation to determine whether they maintain their rapid growth for any length of time. It may be there are natural dominants among trees as well as among other plants and among animals. Where forests are cut to a specified diameter limit it may be that the majority of such trees are the naturally fast growers and those left are the naturally slow growers; in other words, the inherent dominants are removed and the runts are left. With each logging operation the proportion of runts increases. It may be that our logging methods are such as to reverse nature methods and bring about the survival of the unfit. You will perceive at once the economic significance of such treatment of our forests. The time the runts reach commercial size will be long delayed and the value of the land as a crop producer correspondingly lessened; they remain to perpetuate their kind, while the dominants are taken away just at the height of their reproductive

vigor. If this is really the situation, the quicker we know it and remedy it the better. At present the suggestion is only tentative; more data are needed to make the matter conclusive and the science masters can give material aid by studying the behavior of the fast growing young trees on any woodland acre.

Before we leave the consideration of the young trees, I wish to emphasize the statement that a record of their numbers on a single acre is worth while from the standpoint of a contribution to the present and future composition of the forest. This applies as well to the scattered woodlots throughout Ontario, as to commercial sawlog or pulpwood forests. Such knowledge has its practical application as well. Speaking relatively, the time is not far distant when the lumber industry will come back to the small local mill and then because they are nearer the market the woodlots of Old Ontario will increase in value and economic importance. How are they prepared for that day from the standpoint of the young growth? By recording the condition on many single acres throughout the Province, the science masters can answer that question.

There are economic reasons for the statement that the farmer's sugar bush will probably become increasingly valuable as a revenue producer. Are the sugar bushes deteriorating or dying out because of insufficient young trees beneath the old? By organizing their investigations science masters might answer this question by studying representative acres in the various counties.

It might be that the science masters from the central and northern counties would locate their acre in a burned area. A recently burned area would offer an ideal condition to study the successive changes in vegetation in the process of re-clothing the ground with a forest. What are the first herbaceous plants that appear after the fire; do they come from seed or from underground stems; in what way does the time of burning influence the character of the herbaceous plants; when do the young trees first appear; what proportion of them come from seeds and from sprouts; what proportion of the seedlings come from wind-borne seed; in what proportion do the seedlings of the original trees establish themselves in the successive years? Here are questions of both scientific interest and direct practical application, but as yet

we have no answers for them from studies made in Canada. You could solve some of these problems by linking together the results gained from numerous one acre plots, or there might be burns of different ages in the same locality and then one man might reconstruct the various stages in the reforestation of burned areas.

The mere counting of the young trees of the commercially valuable species on the old burns would be of great practical value. There are estimated to be 1,000,000 square miles of burned forest lands in Canada. Is this enormous area destined to restock itself to timber trees or is it destined to lie idle for all time, or at least until it can be reforested by planting? The answer to that question touches the pocketbook of every citizen, yet, as in other cases, while there are many guesses and many opinions, there is not yet sufficient data for an intelligent answer to the question. Every particle of carefully obtained evidence would be welcomed by foresters and you science masters could render patriotic service by aiding in the stock-taking on the burned lands.

As you studied the life history of the individual trees on your selected acre, I am sure you would become interested in the forest as a whole, looking upon it not merely as an aggregation of trees but as an organism itself with its own structures, functions and its own life history, and you would soon distinguish and record the various stages in its development. The various stages in the making of a forest are most easily noted on an area denuded by fire, but sharp eyes can pick them out in almost any forest type. Suppose your acre was covered with white pine. Now, this tree cannot reproduce itself in its own shade. Have you ever wondered what would happen eventually to such a stand of white pine were it not interfered with by man? Surely the pine could not perpetuate itself on the same area. In time it would be displaced by trees whose seedlings could grow in the shade of the pine. If your acre consisted of a mixed stand of hardwoods or softwoods or a combination of hardwoods and softwoods, and if the young trees beneath the crown cover were by nature more shade-enduring than the present dominant trees, then in time the dominants would be displaced by them. In other words, each kind of tree in sufficient numbers at some time to dominate the crown cover represents a stage in the development of the forest considered as an organism.

What the final stage of the development will be I will leave for you to work out on your own acre.

There is a continuous succession of vegetation on any area and with it a succession of other life dependent upon vegetation for food or protection. I recall an upland pasture on the home farm which has gradually grown up to a pine forest. In my early boyhood as an open pasture it was the home of the field and vesper sparrows and with the coming of brambles and small shrubs it was frequented by song sparrows and chewinks; in the sapling thicket stage by chestnut-sided warblers and rose-breasted grossbeaks. When the pines got control and formed a closed canopy the nesting sites were in the trees themselves and were occupied by crows and black-throated green warblers. The vegetation in the old pasture has changed through successive stages and with the changes in the vegetation came changes in the bird life. The insect life and the mammalian life have changed in the same manner because with the change in vegetation their feeding grounds changed. Those of you who are interested in animal life as well as in plant life will find pleasure in studying it with reference to the different types of vegetation on your woodland acre.

The nature of the vegetation in forest types presents other problems for solution. For example, is the subordinate flora in a cedar swamp in Kent county the same as in Bruce county or in the Muskoka District? The tree flora is the same, but does the minor vegetation change in passing northward? Stands of white pine look very much alike whether situated on the shores of Lake Erie or Lake Timagami, but is the under vegetation the same or similar in both regions? What changes occur in the ligneous and herbaceous forms beneath the maple-beech-hemlock type and beneath the yellow birch-balsam-spruce type in the northern and southern limits of their ranges in Ontario? A series of sample acres properly distributed and studied by science masters would contribute interesting answers to such questions.

Similar problems, in fact, present themselves in the study of forest types of a single locality as they grade into each other with variation of soil conditions and their study would answer the question whether the minor vegetation changes more rapidly or less rapidly than the tree flora. This is only another way of asking

whether the under vegetation is a more reliable index of soil condition or climatic condition than the character of the trees themselves. I trust you already see the practical bearing of such studies when applied to soil classification for agricultural purposes in the more northern portions of the Province or, in fact, even in Old Ontario, with the more intensive study of soil adaptability which is destined to come with increased population and the increased use of certain soils for forest planting.

When you have become acquainted with the forest types of Ontario through mutual exchanges of observations derived from your respective acres, I am sure you will also become interested in those aggregations of forest types called forest districts or forest provinces. There are at least four distinct forest districts in Ontario; the southern hardwood district mostly lying along the shore of Lake Erie; a district characterized by a beech-maple-hemlock forest without balsam and with comparatively little spruce, but with much pine on the lighter soils; a district in which the dominant trees are yellow birch, spruce and balsam, again with considerable pine on the sandy soils; a district whose representative trees are swamp spruce, balsam, white spruce and paper birch. We don't know the actual boundaries of any of these districts. We can only generalize them, although the northern limit of one of them lies in the most densely populated portion of the Province. The southern hardwood district, for example, is characterized by the presence of such trees as the black walnut, chestnut, mulberry, magnolia, tulip tree, pawpaw and sassafras. One man could not very well determine the actual limit of these trees, but a series of woodland acres established across the second and third tier of Lake Erie counties might discover their northern limits and so establish the actual northern boundary of the district, and at the same time the southern boundary of the beech-maple-hemlock district would be delimited. The northern boundary of the latter district probably lies in a rather sparsely populated district, but, I venture to guess that if any of you have summer camps in the Parry Sound-Nipissing region, you could throw light on this point—or line—by taking a census of the tree species on some individual acres of woodland.

The establishment of the boundaries of these forest districts would have a practical application in addition to constituting a contribution to scientific knowledge. In the first place, it would serve as a basis for determining the planting possibilities of various tree species. Every year we get several inquiries about the planting of black walnut in Ontario. It would grow in the southern hardwood district, but not in the beech-maple-hemlock district. These forest districts are really climatic districts and they determine the range and growth possibilities of many cultivated plants. If these vegetation districts were thoroughly studied and delimited by the aid of the intensive study of single acres scattered through them, it might lead to the introduction of new agricultural crops, or to the elimination of the less profitable. The baldwin apple, for example, does not do well in the maple-beech-hemlock district. It may live to bear fruit, but before its natural course is run it will be cut down by the severe winter temperatures.

I will mention at this time only one more problem which your forest acre will present, and that by asking the question, how do the trees die? What portion are killed or injured by insect diseases, fungous diseases, or by windfalls? We need disease surveys in our forests. A census of diseased trees even with no statement as to cause would be valuable.

I have outlined to you some of the more obvious problems which every acre of woodland presents. By solving them you would be making important contributions to the advancement of forestry in this Province. Forestry is both a science and an art. The art cannot be practised intelligently without the scientific basis and very little data for the establishment of that scientific basis have yet been procured for Canadian trees on Canadian soil, and of all the great forested provinces Ontario lags the farthest behind in this respect. Foresters are too much submerged in the details of fire protection and other administrative duties to carry on the necessary research work and unfortunately most governments are too much immersed in the considerations of political necessities to establish especially organized forest experiment stations for the solving of our urgent forestry problems. Notwithstanding all this, I do not wish to give you a pessimistic impression of the situation in our own province. On the contrary,

under the present conditions I prophesy the dawning of a new day in the protection, conservation and intelligent consideration of our forests. I do not need to appeal to you for support in such endeavor. I have simply tried to show you how your eagerness to help may be utilized through the intensive study of many individual woodland acres throughout the Province. You would not only receive the mental and spiritual satisfactions that come from scientific research, but above all you would have the satisfaction of knowing that you were doing a patriotic service in discovering facts whose application would maintain our forests in a continuously productive condition.

MATHEMATICAL AND PHYSICAL SECTION.

"The Evaluation of π , and the Squaring of the Circle."

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(Space, allows only an epitome of the original essay, a condensation of the paper as read before the Mathematical and Physical Section of the O. E. A. in April 1920. All diagrams have been eliminated, mere statements of the facts without proofs are given.)

The phrase "The Squaring of the Circle," includes three interdependent problems, problems older than history itself. (1) The Quadrature of the Circle. (2) The Rectification of the Circle and (3) The Evaluation of π .

The Quadrature of the Circle is the reducing the circle to a square or the transforming of the area of the circle into that of a square of the same area.

The problem has probably been the subject of more research and discussion than any other in the whole range of mathematical inquiry. It is the last member of the "Ancient Triad"—"The Trisection of any angle"; "The Duplication of the cube or The Delian Problem"; and "The Quadrature of the Circle." At best the results obtained at squaring the circle have only been approximations.

The Greek word tetragonisein ($\tau\epsilon\tau\rho\alpha\gamma\omega\nu\iota\sigma\epsilon\iota\nu$) shows the circle-squarer was active even among the Ancient Greeks themselves.

The question might well be put, why has this special problem been of such great interest for thousands of years. An answer may be, because of its seeming simplicity, anyone with little or no mathematical training might be led to attempt its solution physically, but not ideally.

It has taken nearly five thousand years to give a rigorous proof of the impossibility of solving the problem under the imposed restrictions.

The squaring of the circle was attempted by the Ancient Egyptians earlier than 500 years before the exodus of the Israel-

ites from Egypt. The Egyptians priests were familiar with the rules of arithmetic and geometry contained in the oldest arithmetic we possess, "The Rhind Papyrus," in which is given a rule for finding the area of the circle. Ahmes, the author of the papyrus a scribe of Raaus, King of one of the Huksos dynasties about 2,000 B.C. mentions he was merely reproducing results that were written 1000 years before his time. Hence "The Rule of Ahmes" for finding the area of the circle dates back to nearly 5000 years ago. The rule is, stated in words: Shorten the diameter of the circle by one ninth of itself and upon the line thus shortened describe a square, the result is the area of the circle. This is equivalent to multiplying the square of the radius by 3.16049, whereas the exact value of the multiplier to six places of decimals is 3.141592. Considering the antiquity of the rule of Ahmes, the approximation is remarkable.

In the pre-Grecian periods, among the Babylonians, the Chaldeans, and the Ancient Chinese, there were attempts at the quadrature of the circle. The fact the Babylonians had discovered, that six chords each of length that of the radius of the circle be placed successively within the circumference starting at any point on the circumference, the end of the sixth chord will lie upon the starting point, led them to conclude the circumference was nearly three times the length of the diameter of the circle. The effect of this Babylonian discovery is seen in the Old Testament of our Bible, as in I Kings VII, 23 and in II Chronicles IV, 2, or even more distinctly in the Talmud, the sacred book of the Hebrews.

The early Greeks knew that the length of the circumference to that of its diameter is constant and equal to the ratio of the area of the circle to that of the square on its radius. Both Thales and Pythagoras were aware the area of the circle was the same as that of a right-angled triangle formed by drawing at the extremity of any radius a tangent whose length was that of the circumference and joining the extremity of the tangent to the centre of the circle, or in symbols $A = \frac{C^2}{2}$

Plutarch states that Anaxagoras (500 B.C.) while banished from Athens and in prison drew a diagram showing the quadrature of the circle.

Pythagoras knew the diagonal of a square and its side, as also the circumference of the circle and its diameter, were incommensurables, results that sooner or later caused the Greeks to give up their attempts at the quadrature by employing only the straight-edge and compass.

Hippocrates (470 B.C.) affected the quadrature of certain figures bounded by curves, the "Lunes of Hippocrates." He applied his quadrature of lunes to find the area of the circle, but was conscious he had failed. One of his quadratures is correct, namely the area of the lune on the side of a right-angled isosceles triangle inscribed in a semi-circle is half that of the triangle.

These early Greeks limited themselves in their constructions to the use of the straight-edge and compasses, and yet they assumed other postulates with respect to points, lines and circles whose truths depended upon other mechanical means, namely their eyes. The truth of this statement at once becomes evident, when a literal translation is given to the Greek word for a point "*Semeion*" (*σημεῖον*) meaning a visible mark or sign, a mark visible to the eyes.

Hippias (420 B.C.) with a mechanical device, his Quadratrix, and later Dinostratus (350 B.C.) with a similar Quadratrix, and with other curves as the Cessoid of Diocles, the Conchoid of Nicomedes and still later the Sinusoid and the Integratrix, assumed a geometrical construction for the value of π could be given. But such methods are non-Euclidean. The method of exhaustions as applied by Antiphon (420 B.C.) and by Bryson (400 B.C.) resulted only in approximations for the area of the circle. Even the great work of Archimedes in this respect was a rough approximation. He found the value of π to be $\frac{22}{7}$, though there are good reasons to suspect a closer approximation was known by him. Archimedes proved the value of π is intermediate between $3\frac{1}{7}$ and $3\frac{1}{16}$ or expressed in Trigonometrical notation $\sin \theta < \theta < \tan \theta$, where $\theta = \frac{\pi}{96}$

Ptolemy of Alexandria (150 A.D.) determined π to be $3\frac{1}{2} \frac{1}{10}$ or 3.1416.

The Romans used 4 for π and in the time of Emperor Augustus its value was taken to be $3\frac{1}{5}$

The Ancient Chinese had worked out remarkable results. As early as 1200 B.C. they had discovered close approximations for

the area of the circle. In the 5th century Ch'ung-Chih stated the limits of π are 3.1415927 and 3.1415926 and that $\frac{22}{7}$ and $\frac{355}{113}$ were good approximations. The Chinese value $\frac{355}{113}$ is a noted result, for no two whole numbers will express the value of π more nearly correct, to six places of decimals. The Ancient Hindus in their mathematics, due to their superior system of notation even surpassed the Greeks. Arza Bhata determined the value of π to be 62832 to 20000 or 3.1416. Brahmagupta, actually took π as the square root of ten. They attempted the squaring of the circle in the reverse order to what the Greeks did, that is to say, they circled the square, thus obtaining the value 3.0888 for π .

In the Middle Ages much attention had been given to the squaring of the circle. One of their results, that of Cardinal de Cusa (1464) might here be stated. The radius of the circle is produced a distance equal to the side of the inscribed square, on the line thus produced a second circle is described, as diameter, in the latter circle, an equilateral triangle is inscribed, the perimeter of this triangle is equal to the circumference of the original circle. The Cardinal's calculations were not disputed for a long time. His work attracted much attention, he being regarded as the solver of the "Riddle of the Ages." However Regiomontanus in 1533 proved Cusa's results were not correct.

Peter Metius in 1635 rediscovered, by a lucky error, the Ancient Chinese value $\frac{355}{113}$.

Before referring to the application of infinite series to the evaluation of π , at least one illustration of an approximation for the value of π should be given. Kochansz in 1685, erected at the extremity of the diameter of a circle a perpendicular of length three units, the radius being the unit at the centre of the circle, an angle of thirty degrees to the diameter is set up, its arm is produced to intersect the perpendicular at the other extremity of the diameter. The point of their intersection is joined to the other extremity of the three unit line, the length of this join is approximately equal to the semi-circumference, or equal to 3.141533 only $\frac{8}{100000}$ of the diameter too short. Vieta (1579) the first to use an infinite series determined π to be 3.1415926537 a value correct to ten decimals. Adrian Romanus, Professor of

Mathematics at Luvain (1625) by extending the Archimedian method determined π to fifteen places of decimals. By a similar method Ludolf evaluated π to thirty-five places, all correct.

The famous Mathematicians and Physicists of the 17th century, Snell in 1626 and Huygens in 1651, showed the method of exhaustions as employed by Archimedes and extended by Ludolf was not the best to solve the problem of squaring the circle. Snell gave a method of trisecting any angle and by means of this he obtained an approximation for π closer than that of Archimedes. Snell's limits are given by the formula

$$\frac{\theta}{3} + 2 \sin \frac{\theta}{3} > \theta > \frac{3 \sin \theta}{2 + \cos \theta}.$$

James Gregory, Professor of Mathematics at Edinburgh in 1667, published a geometrical proposition, showing the ratio of the area of the circle to that of the in and circum polygons cannot be expressed by a finite number of algebraical terms. This was the beginning of a new thought; that later developed into the proof of the transcendentalism of π . Huygens proved Gregory's proposition was faulty, yet at the same time he expressed himself, as also did Sir Isaac Newton, as being convinced the circle could not be squared by Euclidean geometry. It was over 200 years after the time of Gregory before higher mathematics developed far enough to afford a complete demonstration of the impossibility of solving the problem. The invention of the Differential and Integral Calculus gave a new method for the evaluation of π and by much less labour, than that employed by Ludoff, π was computed to hundreds of places of decimals, even to 707 as by Shanks in 1873. Helpful as has been the Calculus in evaluating π to such a great number of places of decimals, the problem of squaring the circle has not in the least been advanced.

Mathematicians conscious of the impossibility of solving the problem turned their endeavours to prove its solution is impossible by Euclidean methods a problem as difficult as the original. The Swiss Mathematician Euler with his discovery of a relation among the five most interesting quantities in mathematics, namely Unity; Zero; e , the base of the Napierian system of logarithms; i the square root of -1 and π ; and Hermite with his proof that e is incommensurable, were the pioneers in the solution of the new

problem. Lambert in 1761 proved π is also incommensurable. Subsequent research showed that if π denote the ratio of the circumference to the diameter of the circle, π must be the root of an equation whose coefficients are whole numbers. Accordingly the problem changed to that of proving π cannot be the root of an equation with integral coefficients, that is π is not algebraical.

Finally F. Lindemann, Professor of Mathematics at Munich, basing his investigations upon the discoveries of Lambert, Euler and Hermite, rigorously demonstrated in 1882, π is transcendental. Professor Lindemann was the first to establish the impossibility of squaring the circle by Euclidean Geometry.

This feat of Professor Lindemann should for ever silence the battle of words, that has raged for 5000 years over the celebrated problem: But will it?

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COMMERCIAL SECTION

PRESIDENT'S ADDRESS.

W. M. SHURTLEFF, B.A., B. PAED, KINGSTON.

Ladies and Gentlemen:

I desire to thank you for the honour which you conferred upon me last year in electing me President of the Commercial Section. I consider it a great honour because this section is made up of teachers who are employed, not only in giving the boys and girls a good secondary education, but who are also giving them a special training which fits them on leaving school to enter at once upon a useful and profitable occupation, an occupation which renders service and makes great efficiency possible in the business world.

In the last report of the Minister of Education for Ontario, figures are given which show that in our high schools and collegiate institutes taken as a whole, more pupils on leaving school enter upon a commercial life than upon any other occupation.

The figures under the heading "Destination of Pupils" are as follows:

Commerce	2,742
Agriculture	1,557
Law, Medicine and Church	339
Teaching	1,407
Trades	667
Occupations connected with the war	499
Other occupations	1,400
Other High Schools	976
Without occupation	1,030
	<hr/>
	10,617

It is thus seen that the number whose destination is commercial life is about double the number of those who are looking forward to a career in law, medicine or the ministry; while of the total number leaving school during the year (10,617) more than one-fourth (2,742) decide to enter the fields of commerce.

The figures I have just quoted refer to those who left school in the year 1918—not the total number attending in that year. The total number in attendance in high schools, as shown by the last report, is 12,400 and in collegiate institutes 16,697. The number of pupils in the former who are taking the commercial course is 1,065 and in the latter 2,116, which means that about one pupil out of every twelve, in high schools, and one out of every eight, in collegiate institutes, is taking a commercial course: while, as we have seen, one out of every four who leave school, enters upon commercial life. These figures are significant and indicate that our courses are not taken advantage of by more than half of the pupils who intend to lead a mercantile career. This is unfortunate for it means that the other half begin their life work under a serious handicap—the lack of any special training.

If our high school commercial courses are what they should be, there seems to me to be no reason why the total number taking them should not be at least double of what it now is. We must therefore, strive to make the course as thorough and practical as possible. The provincial department of education has recognized the wisdom of allowing a certain amount of elasticity in connection with commercial courses, and thus the different schools have opportunity of adapting themselves to local needs.

Matters regarding the length of course, selection of optional subjects, choice of text books, examination standards and graduation diplomas are with certain restrictions delegated to the local authorities for decision and action. As a consequence it is in the commercial departments of our schools that we find some variation from that dull monotonous uniformity which abounds in all other academic departments of our provincial system. This limited amount of local freedom should be fostered and retained. There is such a thing as too much centralization and we should consider ourselves fortunate that in our work we have full opportunity to do our best teaching without the worry of cramming pupils in the endeavour to make them pass departmental examinations. Let us prize the freedom we already possess, and by wise use of our present limited amount of responsibility, convince the central authorities that we are fully competent to shoulder a still larger share.

SOME CONDITIONS WE SHOULD SEEK TO BRING ABOUT.

1. The active co-operation of the Advisory Commercial Committee. This body should be more than a name. It represents the Public and Separate School Boards, and the general business public as well. It should, therefore, be fitted to give wise counsel and support to all that tends to strengthen our commercial departments. The teacher who is head of the commercial department along with the principal should always attend the meetings of this committee and lay before it any plans he may have for increasing the usefulness of the course, in the community. The local school board will usually accept and ratify the recommendations which it makes.

2. A three years commercial course. A high school course of anything less is inadequate to fit boys or girls for positions of responsibility. One or two years in high school after passing the entrance is all too short a time to prepare for the duties of life.

3. Equipment. I wonder if our equipment is up-to-date, in every respect. If not, we should keep before our commercial committee the most imperative needs in that line. We may not get everything we want at one time, but by persevering, persistent effort, we will gradually get all our requirements supplied. The equipment will then include—and here I am quoting largely from the departmental regulations—special commercial desks for book-keeping, a large commercial desk for teacher's use, a filing cabinet such as you will see demonstrated at this meeting, sets of large commercial books, sets of legal papers, etc. The typewriting room should be provided with a sufficient number of typewriters of standard make to allow one for each pupil, a letter book and copying press, a rapid roller copier, a mimeograph, a neostyle, a multi-graph, a paper knife, sample of kinds and grades of paper of various sizes, sizes and styles of type impressions, a filing cabinet with shelves and a revolving demonstration table.

The library should be well supplied with the latest reference books on commercial geography, economics, and allied subjects and the books should be freely accessible to the pupils in the senior classes; while the museum should contain samples of commercial products, woods, grains, manufactured goods, and sets of manu-

facturing processes. Maps and lantern slides should also be provided for the proper teaching of commercial geography.

Then the commercial department should all be located in one part of the school building, so that it could preserve its unity and identity amid the various confusing elements present in a large school. Another point, the form names should be distinctive, as, Junior Commercial, Intermediate Commercial, Senior Commercial, not 1C, 2C, 3C, etc.

Provision should be made on the time-table for proper supervision of the typewriting class and its work. I do not think this can be done in a satisfactory manner at odd times between classes and outside of school hours. However, we may well leave that point for discussion at the afternoon session.

It may appear to many who have not looked carefully into the matter that the purchase of elaborate equipment for the commercial department would be an extravagant expenditure of money, that it would be, as one teacher friend of mine jokingly remarked, "a case of the tail wagging the dog." In view of the fact that, on an average, at least one out of every four who leave school takes up some form of commercial occupation, it is time that the commercial department should cease to be considered the tail end of the school. It should provide a course that will attract the brightest intellects of the school, so that the old saying will no longer be true that "when a pupil discovers that he has no brains, he changes his course to commercial."

Now, thus far I have not spoken of the essential factor upon which the success of any school system must necessarily depend. I refer to the teacher. By every possible means we should endeavour to raise our educational standing. If any here have not yet received a university degree in arts, or are not yet on the way, they should start in at once. It can all be done by means of extramural study and attendance at summer sessions. If the degree has already been obtained, why not begin a course in Economics leading to the B. Com. degree? It always pays to work and fit oneself for something higher up.

Commercial teachers for many years past appear to have been regarded by school boards as being much below other specialists, in the matter of scholarship, and as a natural consequence their

services were considered of less value. This condition resulted in their being offered lower salaries than were paid to specialists in other departments. The Department of Education wisely set about it to remedy these conditions. The commercial specialist examination was strengthened, more subjects were added and higher percentages were required, viz.—an average of 60 per cent. with the minimum of 40 per cent., instead of an average of 50 per cent. with a minimum of 33-1/3 per cent. as before. In addition it was enacted that in order to receive a full Commercial Specialist's Interim Certificate, a candidate must be the holder of a university degree in arts, and before receiving a permanent certificate, he must prepare an elaborate thesis, based upon a personal investigation of systems of accounting, in typical business organizations.

With these conditions in force you will agree with me that it requires fully as much earnest, persevering study to become a commercial specialist as it does to specialize in any other subject. Is there then any just reason why a teacher who has qualified in this way should be dealt with any less liberally, either by school boards or by the Department of Education, than, say, a specialist in mathematics or modern languages? I think not, and yet I can still find instances where the commercial teacher is the lowest paid specialist on the staff. Take a concrete example, in the Minister's Report for 1918, we find that there is a school in which a most successful lady teacher, a commercial specialist, is receiving \$450 less salary than another lady of more recent appointment, who happens to be a specialist in Moderns and History. Since the present regulations require a university degree as one of the qualifications for a Commercial Specialist Certificate, graduates or non-graduates should be recognized as the equal professionally of those having specialist standing in other departments, and there should be no discrimination against them in the matter of salary.

There is still another matter to be righted and this concerns our relations with the Department of Education. Many high school teachers, during the past few years, have been appointed to positions as inspectors of public schools. I have not noticed any commercial specialists among the appointees. Are you aware that a graduate in arts who completes at least three years of one of the specialists courses may have his academic standing ap-

proved by the minister, for the inspector's certificate? You, of course, know that in the first three years of any specialist course the work is practically all of a general nature. Specializing is almost all done in the fourth and fifth years. Why is not a similar privilege extended to graduates in arts, who have a full commercial specialist's certificate? I will leave the question with you. We have never asked for the privilege to my knowledge, but I think now would be an opportune time.

Did it ever occur to you that all other professions besides teaching have organizations by means of which they legislate in all matters pertaining to this welfare? They, by means of examinations, decide who are to be admitted to the profession, and they appoint the examiners themselves. They issue the diploma. They appoint or elect their own official heads. Why are they permitted to do all this? Simply because they have proven themselves capable and the legislature has confidence in their ability and integrity. Who but the teacher is best qualified to speak in terms of authority upon all matters concerned with education? There is none other that has that intimate knowledge and yet he is seldom consulted. But if we are organized and can demonstrate our ability to look after our own affairs, I do not think the privilege will be long denied us.

To foster that professional spirit among all our different ranks, we should issue an educational journal—one operated by ourselves—not an organ of the Department of Education, filled with regulations and orders—but a live up-to-date periodical, to which any teacher would be at liberty to contribute, and in which all matters relating to our work could be freely discussed.

And now in closing I would urge you to keep in mind the thought that teaching is a profession, second in importance to none on earth. Its honours and rewards should not be less. Let us work and get the highest qualifications, demand good equipment, and put our whole soul into our work, realizing that the influence of the latter may go on throughout eternity. While not neglecting our duty to our schools, we must, at the same time not forget what we owe to ourselves and to our profession, and should seek to lift the latter to that higher plane where it will be recognized by all as the greatest and noblest occupation in which man could be employed.

I thank you, ladies and gentlemen, for your kind attention.

UNIVERSITY COURSES IN COMMERCE.

PROF. O. D. SKELTON, M.A., Ph.D., F.R.S.C., KINGSTON.

The Chairman of your section has asked me to discuss briefly this afternoon the question of university training for men and women who are looking forward to careers in business and public service.

The establishment of university courses in commerce and administration is simply one of the latest manifestations of the adjustment of education to life. The world is making new demands, and the universities are slowly preparing to meet them, recognizing, as that modern Polonius, Dr. Murray Butler, remarks, that the "difficulties of democracy are the opportunities of education."

What have been the factors which have led so many universities of late years to establish such courses?

Doubtless the most obvious, though not the most fundamental, is the fact that a much greater proportion of the young men and women of the community are attending secondary and higher schools than ever before, and that an increasing number of them are not looking forward to the learned professions of an older day, but intend to enter business or some form of public activity. The more a high school and college education comes to be considered a normal preparation for life, the greater becomes the necessity of reconsidering our secondary and higher educational systems and programmes to make certain that they are meeting the varied needs of this wider constituency.

But it is not merely that more and more graduates of secondary schools and colleges are looking forward to a business career. Business itself is changing, its organization becoming more complex, its problems more difficult, its standards more rigorous. From the individual standpoint, competition is becoming more insistent, the scope and range of effort much wider, while labor disputes, foreign credits, international controversies, government regulation, call for more specialized capacity and more flexible judgment. From the social standpoint, either conditions are becoming more serious or our consciences more alert; we are realizing the need of efficient training to enable us to deal with inefficiency in pro-

duction, with wastefulness in marketing and exchange, with injustice in distribution. New standards are being set in public administration. In addition to the direct demands of business and of public service, the need of training teachers of commercial subjects in itself calls for ample provision.

Further, because of the complexity of modern business, apprenticeship without special study can no longer be regarded as the best, much less as the sole means of training. It is true that practical experience is indispensable, and that the great majority of routine posts will long continue to be filled by men who are learning on the job. But there is much even of the technique of business which can best be learned in advance. More particularly there is need of systematic study to enable the future business man to relate his own particular job and problem to the wider world of industry, to give a survey which will permanently widen his horizons beyond his own factory or shop, give him flexibility and alertness of mind, and, it may be hoped, a quickened social conscience. "To be brought to realize the larger issues involved in business decisions," declares Professor Ashley, "to understand the place a man's own undertaking occupies in an industry as a whole all over the world and the relation of that industry to others; to be accustomed to weigh conflicting considerations for and against a particular policy; to get into the habit of following the larger movements of manufacturing progress and international trade, to learn how to get quickly to the sources of information, to have caught some glimpse of the age-long trends of industry and slow upward struggles of humanity; such a training should make a man, not merely a better business man, but a better man and a better citizen."

Again, there has now been accumulated a body of principles and information relating to business which lends itself to teaching in the same manner as with instruction in other fields of knowledge. The world has long enough been experimenting with modern means of production and modern means of communication for the accumulation of a great fund of available experience, and the man who proposes to engage in a business career can now be put in possession not only of systematic information as to contemporary conditions, but also of a body of principles and policy deduced from current practice.

Given, then, these four factors—the widening recognition of a high school and college career as a normal preparation for life, the increasing demands that business and public service are making on men's capacity and equipment and character, the difficulty of securing, from apprenticeship in business itself, the wider viewpoint or the specialized technique desired, and the steady accumulation of a fund of teachable principles and practice—it is not surprising that there has been of recent years a widespread endeavor to provide training for business in high schools and universities.

True, not every one has been convinced by these considerations. There are septs and critics, both in the business and in the educational world.

Many business men insist that "business can only be learned in business," or that "college training unfits a man for business," and they often add concrete instances of college-trained men who proved hopelessly ignorant or hopelessly incapable when turned loose in shop or office. It is true that no system of education can take the place either of natural ability or of experience. We cannot make silk purses out of sows' ears, though if we feel our responsibility aright, we teachers will try to find some other purpose for which sows' ears are well adapted. No curriculum can be devised which will enable the commercial graduate to step at once into positions of leadership and authority, but certainly much can be done to enable the fledgling to profit by his early experience more rapidly and less painfully than is commonly the case. The same objections used to be raised against projects for teaching medicine or law or military science or engineering in any other way than by apprenticeship and practice. Yet this has not prevented the establishment of law and medical and military and engineering schools, and their gradual acceptance as the sole or main entrance to the occupation for which they train. We still recognize that there are certain native qualities without which no man can score a great success in law or medicine, and we must ruefully admit that occasionally some utter ass succeeds in running the gauntlet our schools afford. Yet it is recognized that a systematic medical education, for example, will in the first place give even exceptional ability a better opportunity to make itself

manifest, and in the second place, raise the general level of efficiency among the ordinary members of the profession. I do not mean to suggest that the parallel between these occupations and business is complete; in business the requirements are more diverse and the native faculties more important; yet it runs true for no little way.

On the other hand, we have had objections from the academic world. It is urged that no new discipline is necessary, that the old time-tested college studies would suffice to train men for any tasks, and that the important thing is how a man is taught, not what he is taught. There is a measure of soundness in this contention. Any course of study which will teach a man to know himself and to know his fellows, which will train his memory and his judgment, which will accustom him to analyse and compare and weigh evidence and logic, must be of service. Better a man trained on Greek aorists or Shakespearean criticism or chemical formulae than not trained at all. But I would not agree that it is immaterial what a man is taught, that the mastication is all and the food naught. It is just because I believe that each study, each field of human knowledge and endeavor, has its special contribution to make that I should like to see retained in the course of the commercial student a substantial measure of literature and history and science, in order to open up interests and phases of life that may otherwise be barred to the business man. It is for the same reason that I believe instruction in economics and social relationships, the specific study of the ways and principles of commerce are essential in a business man's training and superior for this purpose, other things being equal, to instruction in subjects of only remote and indirect bearing. I do not imagine that there are any who would carry the theory that it is how and not what a man studies that matters so far as to be ready to call in a well-trained physician to build a bridge and a well-trained engineer to deal with a case of double pneumonia.

A further academic objection deserves less consideration—the fear that the introduction of commercial studies into the universities will contaminate and commercialize education, that cultural ends would be forgotten in the pursuit of methods of earning money. I do not share this fear. There are few subjects which

when properly taught do not have a cultural value. The spirit in which a subject is studied counts more than the content: "Nothing is more elusive than culture when deliberately pursued, and nothing more unpractical than the merely practical." A business man's education should none the less be a general education. Because it is related to the work of the world, as ex-President Eliot has observed, it need not be less liberal or less scientific.

Time will not permit an historical survey of the movement toward commercial education. The United States led the way in the university field with the founding of the Wharton School of Commerce and Finance in the University of Pennsylvania in 1881. Progress was slow for a time, but of late the movement has been so rapid that the great majority of the larger universities in the United States now have schools or courses of Commerce. In the United Kingdom, the movement began twenty years later, with the founding of the Faculty of Commerce in the University of Birmingham in 1902. The other provincial universities followed, and since the war began London and the Scottish universities have also followed. In Canada, the lack of any provision for commercial training by the public high schools or colleges led private enterprise to step into the gap. Many of these business schools were narrow and mechanical at best, but a few developed efficient and sympathetic methods and programmes, and will doubtless continue to occupy an important field. Then the secondary schools began, first with commercial courses smuggled into the curriculum of the ordinary high school and later with the founding of admirably staffed and equipped special schools like the High School of Commerce in Toronto and L'Ecole des Études Commerciales in Montreal. Their success, and the operation of the Adolescent Attendance Act, whenever put into effect, will probably lead to a very considerable expansion of such activities. The universities were slower to recognize their opportunity. The University of Toronto established a course in commerce and finance, consisting chiefly of the regular economics courses, leading to the degree of B. A., and Queen's made an agreement with the Canadian Bankers' Association, whereby it undertook to extend commercial instruction in the field of banking, mainly by correspondence study. But it was not until 1918 that McGill, after a short period of experi-

menting with one and two-year courses, established a School of Commerce leading after three years to the degree of B. Com. Queen's established courses in commerce and administration leading to B. Com. and M. Com. degrees in 1919. Toronto is establishing a similar course for next session, and Western, I believe, also has a Commerce course under consideration.

There appear to be three main types of schools in Britain and America. First there is the distinctly graduate school, which requires a Bachelor of Arts course as a prerequisite. Of such schools, the Harvard School of Business Administration is best known. There may not for some years be a very great demand for schools involving six or seven years of preparation, but they will give those who can afford the longer period of study a more comprehensive and thorough training and will afford unusual opportunities for special investigation. A second type is the purely undergraduate school of distinctly professional or technical type, which takes the student fresh from the high or preparatory school and graduates him in three or four years. Practically no subjects of study are included which do not have a direct or technical value. This is the type almost universal in the United Kingdom, where the three-year course leading to a B. Com. is the rule; it has been followed by McGill. It is the type found in such institutions as the Wharton School and the New York University School of Commerce, Accounts and Finance. A third type falls between these other two—a course which combines two years of general arts work with two or three years of specialized Commercial training imposed on this foundation. This is the type found in Columbia, Chicago, Dartmouth, and in most of the state universities. It is the plan which we have followed in Queen's. The aim is to give a broader training than the purely technical school can do, without requiring the six or seven years of the graduate school type. Doubtless it has the faults of all compromises, but I think that not only is it the most practicable method, given our Canadian circumstances, but that it has very decided advantages in itself.

In closing, I might, perhaps, illustrate from our own courses. For the present, the courses in Commerce and Administration are given in the Faculty of Arts. For entrance, pass matriculation is required, and honour matriculation credited *pro tanto*; in either

case, commercial subjects may be substituted for Latin. Allowance is made on Commercial Specialist certificates granted by the Ontario Department of Education. The requirements for the degree of B. Com. involve four years work from pass matriculation. The work is not divided into rigid years. As in our regular Arts work the unit is the course; nineteen full or whole session courses or the equivalent in courses and half, or semester courses are required for the degree; of these ten are in Economics and Commercial subjects and nine in general Arts work. As the B. A. and B. Com. requirements may cover a good deal of common ground, it is possible after securing one degree to obtain the other by passing the classes necessary to meet the additional required prescription. A student holding a B. A. degree, who has taken a major in Economics, may obtain the B. Com. degree by a year's satisfactory work in commercial subjects. A student who holds the B. Com. degree may secure the B. A. degree by passing a year's work in the Arts subjects previously omitted, provided that he has fulfilled the regular B. A. requirements as to matriculation. A longer period may be required to cover the requirements of some of the specialized courses noted below. The degree of M. Com. is awarded for a fifth year's work of a more intensive character, mainly in general economic and professional subjects. A part of the work may be taken extra-murally, but at least one year's attendance, and in normal cases two years, will be required, and attendance for the whole course is recommended.

Students will be required to spend at least one summer vacation, and preferably two, in obtaining practical experience in approved establishments.

Several typical courses have been outlined—general business, banking and finance, commercial specialist, accounting, foreign trade and public service. The Department of Education has agreed to recognize the Commercial Specialist course as filling the non-professional requirements for a certificate. The Institute of Chartered Accountants of Ontario exempts holders of the degree from one examination and one year's apprenticeship.

We are all merely feeling our way in a very difficult task. It will take some years of experience and reflection for the universities of Canada to give reality to their paper programmes, to

change them where closer contact with business conditions or fuller understanding of educational methods require, and to work out close co-operation with the secondary schools which are laboring in the same field. In closing, may I express my gratitude for the courtesy and the value and helpfulness of the suggestions made on this subject by the committee, under Mr. Eldon's chairmanship, appointed by this section two years ago.

O. D. SKELTON.

THE BANKRUPTCY ACT.

Assented to July 7, 1919; Effective July 1, 1920.

P. McINTOSH, TORONTO, PRINCIPAL, SHAW'S BUSINESS SCHOOLS.

1. Dominion Parliament, only, has power to pass a Bankruptcy Law.—See British North America Act.

2. Outstanding Features of a Bankruptcy Act: (a) Debtor can be forced by a creditor to make an assignment; (b) Debtor can be given a discharge.

3. First Dominion Bankruptcy Act, 1873-1878. Repealed because unworkable, largely because of the inefficiency of those entrusted with its administration and the excessive cost of operation.

4. *Substitutes.* (a) Various provincial assignment acts (now ultra vires); (b) Creditors' Relief Acts.

5. *New Act.* (a) Machinery:

"The Court"—in Ontario this means the Supreme Court. Judge may exercise functions in Chambers. Certain judge or judges to be named for bankruptcy business. In case Chief Justice of Supreme Court reports that it is inconvenient or impossible for his court to undertake the duties, the Minister of Justice may appoint a county judge.

Registrar of Court may, for all practical purposes, perform the duties.

"Bankruptcy District"—each province shall constitute a district, but may be subdivided.

"Authorized Trustees"—persons who, having made application to the Secretary of State, are appointed trustees in bankruptcy, and must give security of at least \$15,000.00.

(b) *Application of Act:* To all cases except incorporated banks, building societies having capital stock, savings banks, insurance companies, trust companies, loan companies, or railway companies. These will continue to be dealt with under the Dominion Winding-up Act.

(c) *Possible procedures contemplated:* (1) Creditor may present to court a bankruptcy petition; (2) Debtor may make an

“authorized assignment”; (3) Debtor may submit a proposal for composition, extension of time, or scheme for arrangement of affairs.

DETAIL.

A. In case of Bankruptcy Petition.

1. Debtor commits an act of bankruptcy which may be any of following:—(a) Making an assignment, whether authorized by this act or not; (b) Fraudulent transfer of goods; (c) Conveyance equal to fraudulent preference; (d) Absconding; (e) Permitting execution to remain unsatisfied; (f) Exhibiting to meeting of creditors a statement showing insolvency; (g) Disposing of goods in the intent to defraud creditors; (h) Making bulk sale of goods contrary to provisions of Bulk Sales Act.

2. Creditor presents Bankruptcy petition: Creditor may present to court a bankruptcy petition if debtor commits an act of bankruptcy. Debtor must owe creditor or creditors (if two or more join in the petition) at least \$500. The Act of Bankruptcy must have occurred within six months of presentation of petition.

3. Court acts as follows:—Court will (a) require proof of debt; (b) require proof of service of petition; (c) require proof of act of bankruptcy; (d) if satisfied with proof, adjudge debtor bankrupt; (e) make a receiving order for the protection of the estate; (f) This receiving order names the authorized trustee mentioned in the petition or an authorized trustee selected from a list of authorized trustees furnished by the Dominion Government.

4. Receiving order has effect as follows:—The trustee takes possession of the deeds, books and documents of the debtor and all other parts of his property not devisable property capable of manual delivery. The trustee constituted receiver of the property of the debtor. Such property forthwith passes to, and vests in the trustee.

B. In case of assignment. If the liabilities of an insolvent debtor exceed \$500, he may, prior to the making of a receiving order, make an assignment to an authorized trustee. Such an assignment shall be known as an *authorized* assignment. It shall, subject to the rights of secured creditors, vest in the trustee all the

property of the assignor except (a) such as is held in trust for another person; (b) such as is exempt from execution or seizure under legal process according to the laws of the province within which the property is situated and within which the debtor resides.

C. Debtor's estate is now in hands of trustee who may among other things:—(with permission of inspectors) sell all or any part of the property of the debtor (including the good-will of the business, if any, and the book debts due or growing due to the debtor), by public auction or private contract, with power to transfer the whole thereof to any person or company, or to sell the same in parcels.

The trustee shall within six months from date of receiving order or assignment and earlier if ordered by inspectors pay such dividend as can be paid. Further dividends shall be paid whenever the trustee has sufficient money on hand to pay creditors ten per cent. and more frequently if required by inspectors. until estate is wound up.

D. Discharge of Bankrupt or Assignor. Any debtor may, at any time after being adjudged bankrupt or making an authorized assignment, apply to the court for an order of discharge, to become effective not sooner than three months next after the date of his being adjudged bankrupt or of his making such assignment, and the court shall appoint a day for hearing the application.

Section 58—(5)—The court shall refuse the discharge in all cases where the bankrupt or authorized assignor has committed any offence under this Act or any offence connected with his bankruptcy or assignment or the proceedings thereunder, unless for special reasons the court otherwise determines and shall on proof of any of the facts mentioned in the next succeeding section, either, (a) refuse the discharge; or, (b) suspend the discharge for a period of not less than two years; provided that the period may be less than two years if the only fact proved of those herein-after mentioned is that his assets are not of a value equal to fifty cents in the dollar on the amount of his unsecured liabilities; or, (c) suspend the discharge until a dividend of not less than fifty cents in the dollar has been paid to the creditors.

Section 59. The facts referred to in the next preceding section are: (a) that the assets of the bankrupt or assignor are not of a value equal to fifty cents in the dollar on the amount of his unsecured liabilities, unless he satisfies the court that the fact that the assets are not of a value equal to fifty cents in the dollar on the amount of his unsecured liabilities has arisen from circumstances for which he cannot justly be held responsible; (b) that the bankrupt or assignor has omitted to keep such books of account as are usual and proper in the business carried on by him and as sufficiently disclose his business transactions and financial position within the three years immediately preceding his bankruptcy or the making of the assignment.

THE PROFESSION OF AN ACCOUNTANT.

(An Outline.)

F. P. HIGGINS, C.A.

Mr. President, Ladies and Gentlemen,—I wish to thank you for the honour conferred upon the Institute of Chartered Accountants of Ontario in asking one of its members to address the Ontario Educational Association. I had wished that one more representative of the profession could have been chosen, and, failing that, that personal affairs of grave import had not hindered preparation for the opportunity offered.

The talk I intend to give is a rather loose-jointed mixture of history and practice. For the history I am largely indebted to the work of A. H. Woolf, entitled, "A Short History of Accountants and Accountancy."

HISTORY.

Just as civilization and commerce have gone hand in hand down through the ages, so have commerce and accounting.

When trade expanded beyond the rudimentary immediate exchange of commodities it became necessary to record transactions.

Three thousand years before Christ, at the apex of Babylonian civilization, business records were well understood, as has been shown by the excavations of recent years. Transactions were recorded on plastic clay tablets with a stylus which were then baked. Tablets varied in size from $\frac{3}{4}$ " x $\frac{1}{2}$ " to 9" x 12" and were filed away in great earthen jars. Contracts were often filed in a clay envelope on the front of which a copy of the contract was recorded.

One such tablet of the time of Dungi III, King of Ur, 2700 B. C., states the number of shekels which came into the treasury to the credit of different people. The famous Egibi Tablets date back to about 1000 B.C. The Egibi Sons were a great banking house of tremendous wealth and far-reaching interests. They loaned to individuals and states, and carried on commercial enterprises on a tremendous scale. Their records have come down to us

almost intact, and disclose the use of a cheque form, and records of sales of stores, cattle, horses and lands, and also records of loans and interest calculations.

The Egyptians have not left us as many evidences of record keeping as have the Babylonians, yet we know 600 years before Christ they kept careful records of transfers of properties, collection of taxes, and trading transactions. The records were made on papyrus by scribes who were the expert accountants of that day and stood high in society.

The Greeks 200 years before Christ understood the power of wealth and the need of careful accounting. Examples of the accurate accounting of this period are extant. The records of the temple of Delos for the year 180 B.C., show income from rents, taxes, tolls and interest and expenditure monthly in sacrifice, wages, salaries and festivities.

THE PROFESSION OF AN ACCOUNTANT.

Under the early Roman republic, the public treasury was controlled by the Senate. Quæstors or questioners aided in the administration. Accounts were read out to them for passing. This practice of oral examination gave rise to the use of the word auditor. Careful accounts were kept, not only of the public funds, but also it was considered essential for an individual of any importance to keep a ledger showing income and expenditure.

The greatest advance in the science of accounting began with the publication in 1494 of Paciolo's "Everything concerning Arithmetic, Geometry and Proportion." The last thirty-six chapters deal with bookkeeping and are entitled "Reckonings and Writings."

Paciolo was a monk of the Order of St. Francis, and it is remarkable that he should have such a practical knowledge of business as is indicated by his writings. He states that the three apparent essentials to success in business are ready money, good bookkeepers and keeping one's affairs in order. The fact of the publication of this work and Paciolo's practical knowledge of accounts is reasonable evidence that double entry bookkeeping was then prevalent in Italy.

In England accounts must have been kept of Crown possessions and tax collections back in the days of the Saxon kings. It is not until the time of Henry II, in the 12th century A.D., that we have Government records systematically preserved. The famous pipe rolls kept by the treasurer are preserved from that time, these rolls were a continuation of the Domesday Book and got their name from the shape of the big rolls.

In 1543, Paciolo's Italian bookkeeping was translated into English by Hugh Oldecastle.

Paciolo's system embodied three books: The memorial, journal and ledger.

The memorial is a chronological record of transactions in their original form.

The journal was used as a means of reducing the memorial records to a common denominator for posting to the ledger. This was especially necessary in those times because of the chaotic condition of currency.

The journal and ledger modified and amplified are the account books of the present day.

Expansion of trade and commerce in modern times have necessitated grouping of entries in separate journals for convenience and speed in posting to the ledger and the use of mechanical appliances for collecting and recording entries.

SCOPE.

The Editor of the *Journal of Accountancy* defines accountancy as follows:—

"The practice of accountancy is not a business open to all, but a personal right limited to a few persons of good moral character with special qualifications ascertained and certified after a long course of study, both general and professional, and a thorough examination by a state head appointed for the purpose. The right to practise accountancy is in the nature of a franchise from the state conferred only for merit."

In the thirteenth century Sir Walter Henley thus speaks of the duties of auditors:—

"The auditors ought to be faithful and prudent, knowing their business and all the points and articles of the account in rents, in outlays, and in returns of the grange and stock and other things belonging thereto, and the accounts ought to be heard at each manor and then one can know the profit and loss."

The first accountants were employed by the state for recording and auditing of state property and revenue and expenditures. These were the scribes of Babylon and Egypt, the antigraphers of Greece and the quaestors of Rome. In 1299 we find mention of an auditor of the accounts of the corporation of the City of London. The professional accountant was later employed to open books for private concerns and audit them.

He was first of all mostly looked upon as a detective and his remuneration was based on a percentage of defalcation discovered.

From this stage the profession has steadily progressed until to-day the activities of the accountant include the following:—

Auditing.

Tax Reports.

Investigations.

Liquidations.

Promotions.

Systematizing.

Costing.

Production.

To-day the profession is recognized by the Government and the public both, and its services sought in many of the most important undertakings of state or private capital.

I have tried thus far to help you visualize the evolution of the professional accountant. Now, I believe, I can serve you best in the short space of a single talk by giving you some practical illustrations of some of the various activities of the modern accountant though they be disconnected and incomplete.

AUDITING.

The prime object of the audit is to verify the figures in the balance sheet and to certify that it is correct and exhibits a true condition of affairs. Indeed, if one has verified the accuracy of

each item in the balance sheet he has gone a long way toward the completion of an effective audit, weeks may be consumed in checking vouchers, postings and additions, and even in the preparation and analysis of figures of profit and loss and yet some gross error remain undetected which a verification of the balance sheet would have revealed. It is this fact which has given use to the so-called balance sheet audit which omits in large measure detailed checking of vouchers, postings, etc. The checking of vouchers, postings, additions, etc., is important and I do not intend you to infer that the balance sheet audit is to be recommended. The auditor has grave responsibilities and the audit procedure must finally depend upon the particular case in question.

The method of verifying the balance sheet may be outlined as follows:—

ASSETS.

Cash—It must be verified by actually counting at the date of audit. The amount shown by the cash book may be so small as to make it appear absurd to bother counting it. It would make relatively no difference to the statement if it were all missing. An actual verification at the date of audit may show that instead of a small sum there should be a very large sum on hand which has been covered up at the balance sheet date.

Bank—A written verification should be obtained from the bank. The bank letter should be so worded as to cover all transactions with the bank, whether in one or several accounts or matters and should be not only as of the balance sheet date, but also as of the date of audit. The verification of the bank account to date is essential to the verification of the cash balance to date above mentioned.

Accounts Receivable—A detailed list should be obtained, the total of which is in agreement with the balance sheet. This list should be checked with the ledger. If practicable a written verification should be obtained from the customer. The importance of details should be emphasized. Detail is one of the most important elements of a true voucher and as to whether the details fit the circumstances or not is a shrewd method of checking. Ex-

traordinary items entered under the head of Accounts Receivable must be exhaustively checked. It is not uncommon to find most extraordinary items included in Accounts Receivable. They may be accounts, but the receivable end of their nature has been neglected.

Bills Receivable—The same rule applies to bills as to open accounts.

Inventories—Inventories should be checked as to arithmetical accuracy. Prices should be tested with invoices and certified by competent authority. Quantities should be certified by competent authority to have been taken by actual count weight or measure. They may be further tested by reference to former inventories, stock ledgers, bin cards and actual test counts.

Land and Buildings—Verified by scrutiny of items added during the current year. Former values may be tested by appraisal or cost analysis with due reference to provision for depreciation and obsolescence. Actual title may be verified by abstract of title from registrar of district.

Plant and Machinery—Much the same plan of verification as for buildings. Proper records should be established dealing with cost, cost of installation, age, probable life and sale.

Patents, Secret Processes, etc.—See that title is actually vested in right party, that due provision is made for depreciation, expiry and obsolescence.

LIABILITIES.

Bankers' Advances—Verified by letter from the bank.

Accounts Payable—Verified by a detailed list of balances and statements from creditors. Reference should be made to receiving records, and certificate taken that all liabilities have been placed upon the books.

Bills Payable—Verified by detailed list and statement from creditors.

Mortgages Payable—Verified by letter from mortgagees.

Reserve for Doubtful Debts and Depreciation—Tested as to sufficiency.

Capital Stock—Verified by detailed list of shareholders' holdings and reference to authorized capital allotments, certificate stubs, transfers records, etc.

Surplus—Compared with previous statement and current profit and loss account.

In earlier years it was common practice for the auditor to confine himself to a verification of the balance sheet and the tendency was either to certify it as correct or else not to certify it at all.

In later years it has come to be common practice to certify subject to a report, to comment fully in the report on the balance sheet items and when desirable present details.

Further, it is now generally conceded that the auditor is in a peculiarly favourable position to acquire useful knowledge of his client's operations and to offer valuable counsel and advice.

To this end comparative figures and percentages of sales and expenses are useful to show weaknesses and leaks. Actual costs and percentages are compared with the estimated ones upon which trading frequently is based, and the comparison often reveals serious discrepancies.

The audit will include a verification of the starting point of a new organization by reference to agreement, charter, by-laws, etc. It is not uncommon to find looseness in formations.

The audit originally was intended to discover fraud, but this is a secondary consideration now. Yet the possibility of fraud is always present and its discovery one of the most interesting phases of auditing, but often times heartrendingly sad.

A case in point occurred years ago and may now be cited without prejudice to anyone.

An auditor was engaged to audit the accounts of a company whose secretary was his personal friend. The secretary stated that his accounts were somewhat in a mess as they had been kept by a dishonest cashier who had left with a shortage in his accounts. The auditor found this condition but apart from that everything appeared to be in order.

During the course of the audit friendship was lavished on the auditor, the acceptance of which would interfere with his duties, until finally his suspicions were aroused that there was an ulterior motive in it all. He redoubled his efforts to locate something wrong, but without success save as to a discrepancy in the account of a sister concern which might be only clerical in nature. On

one of these days of exhaustive searching the auditor reached the office earlier than the secretary and when looking through the mail for his personal letters found a letter addressed to the secretary written in the secretary's handwriting. This was not an extraordinary thing but it was a little bit unusual. The auditor questioned the office boy as to whose writing it was and he volunteered the astonishing information that it was the boss', that it was dope, that it came regularly, and that the boss would not be down the morning after it was received.

This led the auditor to believe that there positively was something wrong, and that conditions were not what appeared on the surface. Indeed, this man was prominent in local religious and municipal life, and yet in secret a dopester.

The books and records had been twice checked, hours had been spent in study and contemplation, yet everything seemed in order except the discrepancies mentioned. Finally the auditor determined to get the original deposit slips from the bank, although copies on file in the office had already been checked.

He had not checked far when he discovered a \$600.00 item deposited, but not entered in the cash book. The secretary explained that he had accounted for the \$600.00 by lodging it in the bank. What else would you have him do with it? Then when he was shown that that did not account for it because he had not charged himself with it, but only credited himself with it when he deposited it, he volunteered that it was a cheque he had cashed for a party. A reasonable explanation, but unfortunately, it was not long until there were \$10,000.00 worth of similar entries discovered.

The game was up: he had been selling goods and neglecting to keep any record of the charges. When the cash was received by cheque it was deposited but a similar amount of currency was abstracted from the till, the abstraction being covered by the deposit of the items not recorded. You could check the books until your eyesight failed and you would not discover the error, because there were no records of the transactions.

INVESTIGATIONS.

Accounting investigations cover many fields such as:—

Investigations of rates for public service such as telephone, street railway, natural gas, etc.

Investigation of hypothetical profits.

Investigation of a business for an intending purchaser, and so forth.

In a particular telephone rate case, it was a question of what would be a fair return upon the investment in that particular municipality. The telephone system embraced several municipalities and certain investments were common to all. The long distance tolls were not in question yet they used the same equipment.

In another case a brick-yard had been closed down by the damming of a stream. It became a question fourteen months later not only of damages, but of what the profits would have been if the plant had been running. The value of the clay bank was an interesting problem involved in the costs of operations. Two other businesses belonging to the same proprietor were recorded in the same books which at best were incomplete and not kept by the double entry system.

An investigation for a purchaser in March recorded the fact that orders for fall delivery were included as sales and the goods had not yet been received. What had been claimed as a handsome profit proved to be a big loss. The purchaser was loath to have an investigation and believed that conditions would be found exactly as stated as the seller's integrity was beyond reproach.

Many a purchaser would save a considerable fortune if he would insist on an audit on his behalf from a purchaser's standpoint. Frequently the auditor is called in after agreements are signed and title passed, and it is too late to turn back.

SYSTEMATIZING.

No system will in itself make a business pay, but it can be made an aid to business profits.

The trained accountant of to-day can frequently enter an office, make a detailed survey, and then be able to make recommendations that will save labor, locate losses or make possible a better service.

The survey of the office might develop along the following lines:—

Premises.

Classification of Accounts.

Methods of Accounting.

Appliances.

Correspondence.

Customers' Order.

Invoicing.

Voucher System.

Pay Rolls.

Cost System.

Inventory.

Each of these headings requires analysis in detail. For instance, as to correspondence, the survey of correspondence would record the methods of handling the following:—

Incoming mail:

Who opens it.

How disposed of.

Orders:

How distinguished from other mail; Outgoing letters.

How mail dispatched.

Any check on letters as to promptness in reply.

Filing and mailing:

Vertical, flat, alphabetical, numerical.

How is filing matter received in department.

Carbon copies, use of.

Is filing centralized.

The accountant can advise in an independent way the office appliances, books or forms best suited to a particular purpose. Many offices use the appliance and the system that is handled by the best salesman.

An accountant who had previously been a loose-leaf salesman is authority for the statement that he sold a large American concern many thousand dollars' worth of forms that were absolutely unsuited to their particular purpose.

LIQUIDATIONS.

Liquidation work consists of an investigation and report on the affairs of the insolvent and the realization of the assets and distribution among creditors and shareholders.

In the case of voluntary liquidation the liquidator or assignee is responsible to the creditors and follows their instructions. In the case of liquidation by order of the court the instructions come from the court and the court's approval must be obtained for all actions. In this case the liquidator's solicitor represents him at the court and takes a prominent part in the liquidation.

Liquidation is the test of the soundness of a concern's plan of organization. If it has been correctly formed, the interests of the members is protected against creditors' claims. If not, creditors' claims may embarrass members and directors of limited liability companies who thought they had no personal liability.

PROMOTIONS.

The accountant in this country does not often undertake the promotion of companies by which we mean the organization and obtaining of capital for a new venture.

In England, Scotland and Ireland, I understand this highly important and remunerative work is frequently undertaken by accountants with success.

COSTING.

A good cost system centres around three things:—

1. An absolute control of materials.
2. An absolute control of time records.
3. A complete and equitable absorption of overhead expenses.

In order to absolutely control these factors the entries in the cost records must agree, or to use a costing expression "tie up" with the general books of account. In other words it is essential that the costs include all that for which one pays his money or pledges his credit.

Many manufacturers consider factory records which are pure estimates as accurate costs. A small manufacturer stated that his gross profit was 50 to 200 per cent., that he had the finest cost system in his line of business, that his records were actual costs. His books showed a gross profit of only 15 per cent. His costs, in fact, were mere estimates and either they were grossly wrong or some one was grossly wasting material or labor or else stealing was going on to an alarming degree.

No cost system will work itself. It is absolutely essential to the success of the installation of a cost system that an experienced cost accountant be permanently employed to operate it. The experienced cost expert will not begin until he is assured that a cost accountant has been obtained to keep the records.

The modern tendency is to take test costs, that is, costs in the greatest detail of operations, departments, or articles for a limited time only. Thus proving the cost from time to time without the expense of accumulating the vast amount of detail throughout a whole year. This method is proving effective and cuts the cost of costs to a considerable degree.

PRODUCTION.

Some accounting firms are adding a production department to their activities.

It is the function of a production engineer, or production man as he is called, to speed up production and to cut the costs of operation.

In an automobile plant recently such a man was employed who cut the labor on a car from \$200.00 to \$50.00 per car.

How can these things be done?

Iron moulds were provided for certain parts which did away with filing and fitting, saving hours of time. Screws were placed

in convenient positions so that a yankee screw driver could be used in place of the slow awkward ordinary type. Bolts were substituted for screws and other things in similar fashion.

The value of this particular kind of service may be grasped when I tell you that an American firm is reported to pay its efficiency man \$60,000.00 per year and to give him three months' holidays a year.

The production man depends on the cost accountant for data and must know the cost of operations, departments and finished articles.

*ONE CONCEPTION OF THE PROBLEM OF
SECONDARY EDUCATION.*

JAMES COLLINS MILLER, DEPARTMENT OF EDUCATION.

A careful review of the history of social institutions, both as to their internal and external relationships, reveals a tendency on the part of all of them, after their initial period of dynamic influence and healthy growth, to become less and less responsive to the changing conditions and to the new needs of society. If effective steps be not taken to counteract this inherent tendency, society finds itself from time to time compelled to create new institutional organizations to render the new and modified services which it requires.

The school as a social institution, whether in its elementary, secondary or higher divisions, is not exempt from this general tendency. Those of us who are, in this particular generation, responsible for the functioning of this institution will fail in our duty, both to our institution and to society if we do not take organized and effective measures to keep our schools renewed in spirit, in purpose and in organization, to the end that society may receive its full measure of service and that the varied capacities of its childhood and youth be discovered, developed into abilities, conserved and fully utilized.

Conditions have changed since our childhood. New needs have arisen. Old needs must be met in new ways. New problems are pressing imperatively for solution. The extensions of human knowledge and the marvellous results obtained through its application to the problems of utilizing Nature's materials and of arranging and controlling Nature's forces have revolutionized the fields of production, transportation, communication and distribution. Greatly increased capacity in these fields has made possible the elimination of slavery, the restriction of child and female labor, a shortened working day and a higher standard of economic life for all. The guidance and control of such productive power and the equitable distribution of the results obtained therefrom are the basic problems of economic adjustment to-day. The social and political adjustments necessary to meet and to fit in with these

new economic and human relationships are now in process of evolution. Amid the uncertainties and perplexities of to-day the cry goes forth from the hearts of men for a new assurance as to the values that abide and a new realization of his relationship to the Infinite.

While the situation is such as to affect vitally all divisions of our institution's service, may I call your attention to some of the more important implications as applied to the field of secondary education:

1. Economic changes are making it possible, with little, if any, increase in the relative strain on society, to provide not only an elementary education for all, but also a measure and an increasing measure of secondary education for all.

2. The upward and outward extensions and applications of human knowledge are requiring in an ever-increasing degree a longer period of preparation and a greater degree of specialization on the part of those who aspire to professional service.

3. The applications of science in the fields of communication, transportation, production and distribution have given rise to the need for extended preparatory and supplementary training in fields where heretofore such training has not been considered necessary for effective participation.

4. The wide diffusion of information and the raising of the general level as to knowledge, appreciation and economic status call for a new valuation and new developments in the preparation of those whose vocational responsibility is to be that of leading men aright in the religious, social and political phases of life.

Broadly speaking, the period of secondary education corresponds to the period of adolescence. With all its instability and irresponsibility, it is the period during which those first glimmerings of distant purpose appear on the horizon of the mind of youth—the period during which they find welling up within them those impulses and aspirations which are to drive them forward to accomplishment. It is while this new consciousness of self, of relationship to one's fellows, of new-felt power and purpose is animating our youth that they are given into our hands in order that they may be helped toward full self-realization and toward rendering a full measure of service to society.

Looking outward over the field into which these young people are to go and in which they are to find their opportunities for self-realization and service, we find, in all the varied lines of human endeavor, a demand for trained minds, skilled hands, self-controlled and disciplined hearts that are animated by the will to win, to accomplish, to do. As we look inward, we are to find, not as heretofore, a limited and somewhat highly selected group, but all of our young people of adolescent age with all that that means in variability as to kinds and degrees of capacity and interest. Some of them will be with us for the full time necessary to prepare them to proceed to higher institutions of learning. The great majority, however, will pass directly from the secondary schools into part-time or full-time employment.

Our problem has, therefore, three aspects. In the first place, we must have these young people pass through an experience sufficiently varied in kind and searching in character to call forth the development of the native capacity of *all* of them, as well as the special aptitudes of those who have the good fortune to be endowed with special talents. This experience will enable the student to discover himself and to be discovered by his parents and teachers.

In the second place, with this knowledge of the student's capacities on the one hand, and a *real* knowledge of the varied requirements of society on the other, a reasonable and well-considered tentative decision may be arrived at regarding the direction which should be given to subsequent training at the secondary school. If he be going forward to a higher institution, he must determine, not only, the type of institution, but frequently also the particular department in the institution selected. If he be going directly from the secondary school into employment, a corresponding decision must be made in selecting an occupation. In either case his subsequent training in the secondary school should be determined in large measure by the occupation he has decided to follow in the immediate or more distant future.

In the third place, it must be kept in mind throughout the whole period of training that the development and cultivation of personality is essential for all and that all must prepare to follow the occupation of citizenship. For some, high standards of intellectual or executive attainment will need to be closely asso-

ciated with social leadership and with equally high standards of citizenship. For others a high degree of manipulative skill or technical knowledge will be equally in need of the cultivation of personality, social qualities and good citizenship. For many neither a high degree of intellectual attainment, executive ability, technical knowledge or manipulative skill will be attainable, but they, too, will need in their personal life, in their home life, in their social and civic relationship the cultivation of tastes, appreciations and ideals.

If this, in general, be the problem, what are some of the specific adjustments needed to enable us to proceed with intelligence and in organized fashion with its solution? May I direct your attention to some of the more important?

1. There is need for a decision regarding the enforcement of the Adolescent School Attendance Act and for an announcement as to the date of its enforcement. Its bearing upon building programmes and upon the quantitative and qualitative nature of the service to be provided will be apparent to all.

2. If our students who proceed to higher institutions are to be prepared to meet, not only the demands for new types of professional service, but also the changing requirements of the more traditional types of professional service, attention must be given to needed adjustments in their programme of experience while in the secondary schools, and while in the higher institutions.

3. An even more significant adjustment, however, is required. Heretofore, our group of students has been somewhat highly selected through intellectual tests, vocational purposes, and, in a measure, through economic status. Our main objectives for them have been clearly defined—entrance to the normal schools, the liberal arts colleges and professional schools. While continuing to render this service just as effectively as ever for this group, our institution is now called upon to provide a measure, and an increasing measure, of training of a different type to a much larger body of students who are to pass from us directly into the fields of employment where they will have to meet, not more student tests in higher schools, but the practical tests of every-day employment in their selected occupations.

4. The problems of determining definite objectives that fit in with the actual requirements in all the varied occupations, of selecting and arranging the lines of experience through which these students may wisely be required to pass, the determination of the various stages at which he is to be expected to reach the respective objectives—all of these problems must be solved.

5. The majority of us find less difficulty in dealing with the preparation of students for entry into the higher institutions. We have been through the process ourselves and know of the tests that are ahead of them. This type of preparation has been going on for ages past. How many of us are in an equally advantageous position to render as high a grade of service to this new and larger group with which we are now called upon to deal?

6. Three types of experts are needed. For organization and executive functions there is need for men with abilities which fit them for this type of service, and who are willing to undertake the adjustment and development of our institution to meet these new external relationships and these new internal problems. For the teaching of theoretical subjects as applied and intimately related to the various occupations there is need of a group of specialists who know, not only the theory, but have also a direct appreciation of the practice in the field to which the theory applies. For the teaching of such units of the trade or occupation as may be taught advisedly prior to entrance into employment and also for such units as may be learned best after entering employment, there is need of practical men experienced in the occupation who have the teacher's gifts and have received training in the teacher's craft.

7. With a knowledge of the character and abilities of the students on the one hand, and a knowledge of the varied requirements and opportunities in the field of employment on the other, we most certainly should be in a position to render much needed help in the vocational advisement of our youth. We should have the specific information available which will enable us, in association with the students and their parents, to confer with and help them to decisions, however tentative, that will be based on reasonably adequate knowledge rather than on mere opinion, passing fancy or the temporary opportunity for immediate employment that may be presented. This will mean also the establishment of

direct working relations with the employment officers of the various establishments in our communities, as well as with the employment officers of the Governments.

8. The training of those whose vocational responsibility is to be that of providing leadership in religious, social and political phases of life must be modified in character and extended in scope. Their problem is no longer that of leading a community limited in outlook and restricted in knowledge. The extension of secondary education to meet the needs of all, rather than displacing training for leadership in the professional, social, religious and political fields, really calls for more adequate training and higher standards of attainment in these fields than has heretofore been considered necessary.

EXAMINATION OF CHART.

Twenty minutes is a brief period in which to present even one conception of the problem of secondary education. I know of no field in educational work that offers a more difficult and therefore a more inviting professional opportunity to render a service that may be made of vital significance to the welfare of our people and the status of our country. May we not join together in good comradeship, in critical and searching, yet constructive good comradeship, in working out these very necessary adjustments in the relationship of our institution to society.

SOME TENDENCIES IN HIGH SCHOOL EDUCATION.

DR. MERCHANT, DEPARTMENT OF EDUCATION.

When your secretary called me on the telephone and invited me to speak to you at this meeting, I told him that I feared that I should not be able to find time to prepare a suitable address. My objection was at once set aside. "Come and talk in an informal way on any educational subject in which you are interested," he replied. The assignment, stated thus invitingly, did not, at the time, seem so difficult and I accepted it.

He asked me to name a topic, and, without giving the question much thought, I suggested the subject on the programme. This topic attracted me because it appeared to be without limitations. I judged that I might make a pretence at discussing it, and at the same time, wander to and fro at my own sweet will and talk about anything or everything directly or indirectly connected with secondary schools. But on Saturday when I began to turn the subject over in my mind with the view of establishing some more or less definite paths upon which to wander, I soon discovered that instead of securing freedom by my generalized statement, I had so wrapped myself about with a net-work of multiplex tendencies that I should, with great difficulty, be able to make headway in any direction. Moreover, I found that the interpretation, the evaluation, and the interaction of these tendencies involved educational problems more numerous, more complex, and more confusing than the tendencies themselves. I observed that the only reassuring word in the statement of the topic was the first, "Some," "Some Tendencies in High School Education." In your interests as well as my own, I resolved to keep my attention fixed upon this word and to take advantage of its indefiniteness to narrow as far as possible its limitations.

Accordingly, I have selected, somewhat at random, a few of the tendencies which appear to bear most directly on the practical work of the schools and shall suggest some of the problems that these tendencies are forcing upon our attention. I have endeavoured to arrange them in groups under headings, but I cannot claim that the classification is based on any clearly defined prin-

ciple. As I have said, these tendencies are so interwoven as to resist successfully my powers of logical analysis.

1. *Aims of High School Education*: A system of education can be highly efficient only when there is a clear recognition on the part of everybody concerned—Department of Education, teachers, inspectors, trustees, and people—of the exact ends which the system is expected to realize both for the child and the state.

What are the aims and purposes of High School education? One of the marked tendencies of the present day is to demand an answer to this question. The tendency to ignore it, or the failure to answer it with definiteness, has been one of the chief causes of lack of directness and effectiveness in school work.

In early days, the purpose of our secondary schools was relatively simple and well understood, to prepare boys for the university; and this purpose still dominates to a very considerable degree the work of the schools; but almost from the beginning there began to grow up a tendency to resent this domination and to demand for the schools a wider field of activity. This tendency is very marked at the present time. These wider purposes have been variously stated in general terms such as the development of character, social efficiency, preparation for citizenship, vocational efficiency, etc. But the factors involved in such general aims remain to be analyzed out and utilized if they are to affect very directly the procedure of the schools in attaining the ends to be sought. Take as illustration the most comprehensive of these aims. No speaker has ever lectured us on the aims of education who has not reminded us that its chief purpose is the development of character. There has been no failure to impress this fact upon teachers or upon the public in general, and rightly so, because this aim, interpreted in its widest sense, includes all others; but character in the abstract has not been found to be an effective end in changing and determining school practice. What we have lacked is an effective working conception of the factors involved in character development and of the relation of these factors to the everyday work of the schools, higher or lower. But interest is being awakened in this subject. There is a public demand that the purposes of the schools be more clearly defined and that these purposes should have a more direct bearing upon the character of

the organization and the instruction. We have just had a National Conference on Character Education in Relation to Citizenship, very largely attended by persons from all parts of the Dominion, to discuss and to emphasize this very question. The fact is significant that this convention was mainly promoted and attended, not by professional educators, but by business men.

In its broader analysis, this problem appears to be relatively simple. The end of life is service; the Master made this clear, and experience is abundantly proving the wisdom of his philosophy. Improvement in character in relation to service involves four factors:

1. The acceptance of service as an end in life.
2. The ability to conceive worthy ends in service and the ability to form adequate plans to realize them.
3. Strength of purpose and emotional force necessary to realize these ends.
4. An equipment in knowledge and in skill necessary to carry out plans.

The first two of these factors have to do with motives; the last two with the personal equipment necessary to realize them.

The equipment factor, especially its knowledge phase, has received our chief attention. Our eyes are being opened to see that knowledge, whether selected and acquired for the purpose of liberal culture or vocational efficiency does not alone furnish a satisfactory equipment for effective service. Real efficiency in service involves moral as well as intellectual and practical factors. Should not, therefore, the development of proper motives be as much a concern of our schools as increase in knowledge or acquisition of skill? Or to be more concrete. Is it not as truly our business as teachers to lead our pupils to accept service as an end in life and to form worthy and sane aims and plans in this service as to teach them the humanities, or the sciences? The broader aims to be realized in the schools may be stated with certainty. The difficulties in our problem begin to appear when we attempt to search for and to apply the means for attaining them. Never-

theless, the means must be found. The progress of the times is teaching us the danger of divorcing motives from equipment. In fact, many good people at the present time are prone to condemn altogether efficiency as an end in education because they appear to see a relation between the degradation of the moral life of the German people and the German system of industrial education. German industrial education is faulty, not so much in what it has stressed, as in what it has omitted. It is not so much German efficiency that is at fault, as German ideals and motives. The same elements of efficiency that were utilized in building up Germany's great industrial institutions became instruments of destruction and death when the nation became intoxicated with the vision of world power, and directed its action by the principle that 'Might is Right.' An education is not to be condemned because it is intimately connected with the practical affairs of life. Surely it cannot be an immoral thing to perfect a citizen's talents for employment in a life career in some necessary form of social service. What we must endeavour to do is to ensure that this career be undertaken in a spirit of service and carried on with fulness of knowledge and perfectness of skill. Morality is not necessarily associated with ignorance and incompetence.

2. *Courses of Study in High Schools:* From the beginning the high school courses have been, in a large measure, determined by the entrance requirements of the universities and the professional schools. At times there has been a demand for a "general course" freed from the restriction of examinations; but the fact remains that when subjects have been added avowedly for the purposes of general education, in the end they have come to be included in some form or other in the examination list. I cannot think of a subject, unless it be physical training, that has not had such a history. Art, household science, agriculture, and even manual training are now bonus subjects.

The only successful reaction against courses fixed by examinations are those of a vocational character. Quite early in the history of our high schools, a feeling developed that the school courses should bear more directly on the practical activities of life. This feeling has been intensified by the fact, pointed out from time to time, that but a very small fraction of those in attendance ever pass on to higher institutions.

This feeling produced no very decided effect on the organization of the schools until the vocational departments were established, first the commercial, and later, the agricultural, industrial and technical.

The tendency to require the schools to take a larger share in directing the youth towards a life career and in preparing them for service in it is, in my opinion, certain to grow stronger; and many of our most important problems are to centre in providing adequate courses and agencies for this purpose.

It is fortunate, I believe, that our vocational schools in the beginning took the form of departments of high schools. We have been saved, to a great extent, from the bitter feeling of antagonism engendered between the new and the old types of schools in countries where vocational schools have been developed mainly as separate institutions. We have been saved also, I trust, from the tendency to narrowness manifest in the vocational courses of the schools of these countries, as a natural reaction, possibly, against the formal traditional academic courses. While we are laying stress on the specialized training necessary for a vocation, we are not overlooking the necessity for a thorough grounding in the essentials of a general education as a basis for citizenship. If the purpose of life is service, these two ends cannot be contradictory. But we have not been saved altogether from the attempt to develop an opposition between what have been termed the higher demands of culture and the lower "bread-and-butter" requirements of a vocation. But vocational courses are not necessarily, and in fact, should not be, narrow.

As I have pointed out on many occasions, I believe that no sharp line of distinction can be drawn between vocational and cultural education. True culture implies a motive in service. The ideal is not a liberal education for the enjoyment of a life of inaction and leisure, but rather the most liberal training for all forms of service. Now, while an individual may serve in a great variety of activities, his chief service must be directed through his vocation, and his education should accordingly follow the lines which will bring him into the most complete freedom for his work, giving him not only practical skill but, at the same time, helping him to understand and to view it in all its fullness of relationships

—scientific and mathematical, social and historical, aesthetic and ethical. Vocation, therefore, may become the centre of organization for the most liberal form of culture.

The problem of providing a more liberal training for all workers presents its difficulties, but that is no reason why we should not devote ourselves to its solution.

With the rapid accumulation of knowledge in every field there has come a strong tendency to increase unduly the number of subjects on the curriculum of the general course, and, at the same time, to add to the content of individual subjects. Topic after topic and subject after subject have been added to the courses on the ground that pupils should not be allowed to leave school without a knowledge of the facts or principles to be presented. The general impression appears to prevail that the burden to be borne by pupils and teachers is already too heavy. The minister is taking steps to obtain the facts and to apply an effective remedy. I trust you will give him your most hearty support and assistance. The answers already received to the questionnaire sent out by him give abundant evidence of congestion. The pupils of the lower school appear to be taking concurrently from twelve to sixteen subjects. As one of the most experienced of our principals remarked in forwarding his answer sheets, "No pupil is being educated who has to carry so large a number of subjects."

We must find a remedy and apply it at once. In the United States an attempt is made to find a solution to this problem through offering pupils a choice in courses from a wide range of electives and by providing for instruction in different subjects in different semesters or years. In Great Britain the tendency is to endeavour to lessen the pressure by simplifying materially the contents of subjects and by synthesizing courses. We shall probably find it advisable to make modifications in all of these directions.

3. *The High School Teacher and His Work*: The staff presents an attractive field for the discovery of tendencies; the factors that affect the teacher are so numerous and can be viewed from such a variety of standpoints. I might, for example, discuss the tendency to demand higher and still higher academic attainments

of the high school master, and trace the history of the working of this tendency from the time that teachers with Second Class Public School standing were accepted as assistants in High Schools up to the present when none but university graduates can qualify for positions; or I might trace the movement for professional training through its various stages in the Model Grammar School, the Training Institutes, the Provincial School of Pedagogy, the Normal College, and the Faculties of Education, but these and similar questions are of no great interest to us to-day because they do not present problems of any real difficulty. There is, of course, room for progressive improvement through a wise direction of these movements, but the lines of advance are well marked and the means fairly well known.

On account of their importance and for the sake of emphasis I propose to select two only from the great variety of tendencies that centre in the teacher and his work. The first of these is the very obvious tendency found everywhere to overwork and to underpay the teacher. I place "to underpay" second, not because it is second in importance, but because on account of the present tendency to place salary scales on a higher basis, it may not be advisable to speak too loudly of the financial disabilities of the teacher; yet, considering either the relative importance of the work or the ability of those engaged in it, the highest remuneration offered is far from adequate for the services rendered; moreover, we must remember that many teachers, especially in the smaller schools, have not, as yet, shared to any very great extent in the general increase. The movement for higher salaries has been well started; the problem of giving it momentum is yet with us.

But the overwork, from the standpoint of the seriousness of its effects on the schools, is more to be condemned than the under pay. Nor are the effects any the less serious because this overwork is not generally recognized by the public and even not by teachers themselves when they come to regard prevailing conditions as permanently fixed. One hears very few complaints from teachers, and, as far as I am aware, no organized efforts have been made to improve conditions. Nevertheless, the fact remains that high school teachers are very much overworked and as a consequence often

find themselves sorely lacking in that vitalizing freshness and energy so necessary for quickening the mental and spiritual life of the youth.

How can the teacher who is required to drill a succession of classes from eight to eleven periods a day, and who goes home in the evening loaded down with exercises or examination papers find the time and the means to keep himself physically strong and mentally alert for a work, which, from its very nature, demands vitality?

I notice from the programme that a committee in one of the sections is to report on "Research Work to be Conducted by High School Teachers." This is good. The person who is himself a student, especially if he is striving to add something, however small, to the world store of truth, appreciates the difficulties of the learner and as a consequence is a more sympathetic and intelligent teacher. But where shall we find the teacher who has the leisure to devote himself to research work? Here and there one may attempt to investigate a problem, but under present conditions he can do so only by neglecting his school duties or subjecting himself to additional overpressure.

It is sometimes said, possibly with much truth, that teachers limit their interests and their efforts to the work for which they are paid, and take no active part in the social or civic life of the communities in which they dwell. But I am convinced that the reason for the teacher's limiting his activities is to be found more frequently in a conscientious determination to perform faithfully his school offices, which tax his time and his strength to the uttermost, than in a desire to escape social or civic responsibilities.

There is a tendency, I am told, at the present time to relieve principals from routine work. Boards are learning that it is not good business to keep a highly paid principal engaged with clerical duties, and secretaries are being engaged to keep the records and carry on the correspondence. They are also beginning to appreciate the value of giving more time for supervision and administration. Some of the principals are taking advantage of the greater freedom from grind to take an active part in community life, to the decided advantage both of themselves and the communities concerned.

I enter upon a discussion of the second of the tendencies relating to the teaching force of the schools with a certain amount of hesitancy, not because there is any doubt about the existence or the force of the tendency; both can be proven by figures, and direct mathematical demonstrations are conclusive; but there is a decided divergence in opinion regarding the effects of this tendency, and one's judgment or even good faith is liable to be challenged whatever attitude one may take towards the question.

Forty years ago the percentage of female teachers in the high schools was 7; thirty years ago the percentage was 10; twenty years ago, 16; ten years ago, 32; last year, the percentage was 51.

The exact character of the situation is not given accurately by a statement of the percentages of totals, because the changes have been more radical in certain groups of schools than in others. As a rule, the increase in the percentage of female teachers has been much greater in the small schools than in the large. If we include the continuation schools, there are to-day eighty-five schools in which no male teachers are employed. There is but one male teacher employed in each of three six-teacher schools, seventeen four-teacher schools, thirty-two three-teacher schools, and sixty two-teacher schools.

The rapid change from male to female teachers has been marked by everyone whose interests are concerned with schools. Teachers and those contemplating entering the profession are discussing the possibilities of the future. Many point to conditions in the United States, where the high schools are as completely in the hands of women as are the public schools in our own country; and contend that the time is near when high school teaching with us will practically cease to be a man's occupation. This view, I believe, tends to become prevalent and is becoming one of the main reasons why men are disinclined to select teaching as their life work. The effects of the tendency towards a higher proportion of female teachers have been discussed from time to time by school boards, the press, and legislators. I need not analyze these discussions; you are familiar with them. As a rule, I believe, the tendency is deplored, but there are not wanting persons who contend that women are the better teachers and that the schools have much to gain and little to lose through an extension of their influence.

I trust you will pardon me if, without elaboration or argument, I speak of my personal experiences and convictions. When I was principal of the Collegiate Institutes at Owen Sound and Stratford where there were no female teachers, and at London where, in the beginning, there was but one, I felt that not only for the exigencies of management, but also for the purposes of instruction as well, the schools could be made more efficient by the appointment of a fair proportion of women on the staffs. When the attendance at London became large enough to warrant it, I divided the boys and girls of the lower school into separate divisions and classes. This was done mainly for convenience in arranging for physical training, but I soon became convinced that the conditions for general instruction were improved by the change, and that the boys profited most from the instruction of the male teachers and the girls most from that of the female teachers.

During the year that I was in Great Britain I enquired somewhat closely into the effects of separate school organizations for boys and girls. As you are aware the practice there is to provide separate schools or classes for boys and girls in all divisions above the primary grades. The boys are taught by men and the girls by women. I was satisfied that the system had very much to commend it, especially in its action on the pupils in the higher grades. This opinion has been confirmed by observations in the Provincial Model Schools, which I have inspected for several years. To be frank, I have developed a strong bias towards separate organizations for boys and girls. That bias is based partly on a conviction, which is growing stronger, that a girl's education beyond the requirements of the elementary school should differ materially from that of a boy's, and partly on a belief, founded, as I have said, on experience that, as a rule, to which, of course, there are exceptions, a boy can be better taught by a man and a girl by a woman. These convictions have led me, in promoting the establishment of industrial and technical schools, to provide organizations in which boys and girls will receive separately a training in accord with their interests and their needs.

I am well aware that, even if all were agreed that it was desirable to provide separate classes for boys and girls, for prac-

tical reasons it would be impossible to do so in many of our smallest secondary schools. But at least we should endeavour to secure a proper balance of male and female teachers in every school. In many schools we have lost that balance already. Would it not be a national calamity to have our secondary schools come under the exclusive control of either men or women?

4. *Attendance of Pupils*: It is a fact that our secondary schools are attended by a very small percentage of the pupils who pass through the public and separate schools. For many years we accepted this condition, if not altogether as satisfactory, at least as necessary. But opinions on this subject in this country as well as in others have suffered a decided change. The necessity for the extended education of *all children* is becoming very clearly recognized. Rightly, as I have endeavoured to show, the schools are being held responsible, on the one hand, for the development of the character of the youth and, on the other, for a training in efficiency. Now when the child's schooling closes at fourteen years of age, the chief opportunity for character direction is lost to the school, because the significant aims and purposes of life do not begin to take shape until the youth enters upon the period of adolescence. If the school is to be held responsible in a large measure for the development of national character, it follows that it must take an important part in guiding and controlling the youth during this critical and formative period. On the efficiency side, too, the training given in an elementary school cannot be said to be sufficient, whether the question is regarded from the standpoint of the academic training necessary as a basis of civic intelligence or from the standpoint of an adequate educational equipment for useful service in a commercial, agricultural, or industrial vocation. This statement is not to be construed as a reflection on elementary school systems; much of what has been demanded of the elementary schools in this and other countries cannot be realized in any system, however perfect, within the present age limitations of compulsory attendance. Most of the criticisms levelled at the elementary schools have resulted from a failure to realize the actual possibilities of education within this period, and many of the mistakes in school organization, especially in the line of congesting courses of study, have been made in the endeavour to modify school conditions to meet such criticisms.

It is now generally conceded that some form of compulsion is necessary to provide for the continuous and extended education of all. This question was very fully discussed at the last session of the legislature and two important acts were placed on the statutes, one affecting the attendance of children up to fourteen years of age and the other that of the attendance of adolescents from fourteen to eighteen years. Problems of attendance, therefore, are mostly connected with the providing of the conditions necessary for carrying these acts into effect.

Manifestly, courses of study, types of schools, and methods of instruction must be more or less varied for children beyond fourteen years of age. Important problems, therefore, are connected with the providing of such courses of study, types of schools, and methods of instruction to meet the needs of both urban and rural communities.

5. Age Limitation of Pupils in Attendance at High Schools:

Another question is very closely connected with that of the necessity for a more universal attendance at secondary schools. I refer to the desirability for a change in the age limits of attendance. Students of our high school system have been protesting that pupils come to our high schools at too late an age. The protests have come mainly from university men interested in language training. They have contended, not without reason, that our universities cannot train men to be accomplished linguists because our youth begin the study at too late an age.

These protests are becoming more numerous and more insistent and the reasons submitted for an early entrance age are no longer confined to the necessities of language instruction. Industry and business appear also to demand a specialized training at an earlier age. Further, it is pointed out that there is a restlessness and a change of interests and needs that come to pupils at about twelve years of age that make advisable a change in the courses offered by the schools. The need for this change has been met in the United States by the organization of junior high schools, and in Great Britain by the central schools. We took a step in the direction of such a change when we provided for the admission of pupils of fourth form public school standing to our industrial and technical schools. The general problem remains for dis-

cussion and solution. The difficulties in finding a solution are enhanced by the fact that our public and high schools have been developed from the beginning as separate institutions, and both may have a tendency to lay claim to the attendance of the pupils concerned. This tendency has already become manifest in some centres where technical schools are established.

6. *Administration*: The solution of a number of the problems, to which I have referred, would, in all probability, involve certain changes in our present provisions for governing and managing our public and high schools.

In the larger urban centres a lack of co-ordination in various types of schools is clearly manifest. The result has been overlapping and the failure to give sufficient attention to certain necessary types of work. Co-ordination has, in part, been provided for through legislation which makes it possible for a High School Board and a Public School Board to unite to form a Board of Education representing all educational interests except the Separate Schools. But in the larger urban municipalities school affairs are necessarily, more or less, administered through officers, and no one officer represents all types of school effort. Practically, therefore, the public schools, high schools and technical schools in such centres are under different administrations. There is necessarily a lack of co-ordination and a certain amount of overlapping. Certain forms of school activity also, which bear a relation to all types of schools, for example, vocational guidance, receive no attention. The effects of lack of facilities for co-ordination will be much more serious when the Adolescent School Attendance Act comes into force. In fact, an adequate administration of this act will make it necessary to provide some means of unifying control and effort in the towns and cities affected by it. Manifestly, this question is related very closely to the problems bearing upon inspection.

SUPERVISING AND TRAINING DEPARTMENT.

EDUCATIONAL IDEALS.

N. McDougall, B.A., PRESIDENT, SUPERVISING AND
TRAINING DEPARTMENT.

Education in its broadest sense includes all of life's experience from the cradle to the grave, but specific education such as is aimed at in our schools and colleges has two essential functions. The first might be called the disciplinary function, which has for its object the strengthening and developing of the physical, mental and moral power of the individual. It was to this disciplinary culture that nearly all of the celebrated early educators directed their efforts. Hence they stressed the classics and those studies that would discipline the mind and character. The second function of specific education is the preparation of the individual for the active work of life. This is often spoken of as the utilitarian aspect because it aims at educating the boy to become a practical man rather than a scholar. One of the most renowned advocates of this phase of education was Herbert Spencer who maintained that the knowledge which is most useful in daily life, also affords the best mental discipline in its acquisition. For this reason he would give natural science chief place in any programme of studies.

For many years the disciplinary view of education predominated, but in more recent years the "practical" view is being strongly emphasized. Sane educationists, no doubt, recognize that both views are essential to educational efficiency, but it seems to me we have reached a time, in the educational history of this province, when we should seriously consider how these two phases of education are to be so harmonized and adjusted in our courses of study as to give a true educational ideal.

In modern history, Scotland and Germany stand out as conspicuous examples, the one of a nation that strongly emphasized the disciplinary value of education and the other of a nation that just as strongly emphasized practical efficiency as the most essential thing in educational training. Let us consider for a moment

the educational policies of these two nations and see the result of each upon the nation and upon the world.

About three hundred years ago, John Knox established in Scotland a system of parish schools, to the influence of which, splendidly supplemented by the influence of the parish homes and the parish churches, all that has hitherto been praiseworthy in Scottish character may be traced. Many of these parish schools were taught by university graduates, whose personality became stamped upon the pupils. Their main purpose was to train the mind and develop the character. Indeed the schools of Scotland have always been famous for the attempt to develop intellectual habits and to inculcate high ideals rather than to give a training of an essentially practical type. The prominence given to Bible study in the schools and homes of Scotland has, no doubt, also been a great factor in moulding individual character and in shaping national ideals.

The effect of such a democratic system of education, which aimed at a thorough mental and moral training of the masses, long before such a thing was considered necessary in other countries, was to produce a superior class of citizen, who in less than a century raised Scotland from a position of comparative inferiority to a foremost place amongst the nations of the world. Moreover, as a great historian has stated, wherever these people went they achieved the highest success; whether in commercial, industrial or professional life and no other people, in proportion to their numbers, have made a greater contribution to the world's civilization. I may add that to-day Scotland leads the world in the matter of salaries and pensions to teachers, showing that the Scotch folk are conscious of what the schoolmaster means to Scotland.

The German system of education, unlike that of Scotland, aimed at keeping the intellectual development of the masses firmly under control. The main efforts of the teachers in the German schools and universities were directed towards the securing of the pre-eminence of the state and the unwavering obedience of the individual. Besides this the conception that regards the be-all and end-all of the state as power, was strongly impressed upon the minds of the students, from which arose the pernicious doctrine, that so far as the state is concerned, "Might is right." This

rigid supervision of the individual from the cradle to the grave led to an abdication by the people of the right to political opinions and with it to a decline of political capacity.

In order to carry out her ideal of material efficiency Germany incurred tremendous expenditures in establishing commercial and industrial schools. For this she reaped a rich reward in the remarkable extension of her trade and commerce previous to the outbreak of the war.

The effect, however, of this autocratic system of education, which aimed at suppressing personality and initiative and at making the schools simply an effectual means for the transmission of views, opinions and ideals specially approved by the state, was to produce a class of citizens who were simply cogs in a great state machine. By this means a powerful empire was built up based on material and military efficiency, but it gradually lost its soul.

In these two countries we have illustrated Educational Ideals exactly opposite in character. Scotland emphasized intellectual freedom and spiritual ideals, while Germany emphasized intellectual subjection and material aspirations. The results have been just as different. Because the Scottish system stressed the supreme importance of the individual, democracy took deep root, while love of education, love of freedom, love of country and a recognition of the brotherhood of man became strong national characteristics. On the other hand, the German system, having stressed the supreme importance of the state, with the individual citizen simply as a cog in the state machine, caused autocracy to take deep root; while the desire for material wealth, military glory, world domination and a recognition of the principle that might is right, became national ideals which were chiefly responsible for the greatest tragedy in all history.

The influence upon national life and world civilization of the educational policies of these two countries should afford a splendid object lesson for those who are endeavouring to arrange a system of educational training, that will as nearly as possible, meet the requirements of this great reconstruction period. We speak of government of the people by the people and for the people, but if the people are to rule wisely and well, the masses must be educated to a reasonably high standard of mental training and character development.

The marvellous advance in science since the middle of the nineteenth century has brought about a tremendous increase in the wealth of the world. This, in turn, has produced a marked change on the ideals of the people. We are living in a decidedly materialistic age. The influence of the church has been greatly lessened because the ideals of the masses have become so strongly materialistic, while as regards education, its methods, content and aim have also been modified to such an extent that many prominent educationists believe that the utilitarian view is being too much emphasized, while the disciplinary view that tends to sound scholarship, culture and force of character is being gradually thrust into the background.

An eminent American professor, a few years ago, after attending a banquet given by the graduating class of a noted School of Science in the United States, and listening to several speeches by the graduates, not one of which contained an inspiring thought, but all pointed to material gain as the supreme purpose of life, said he was convinced that their educational outlook was becoming altogether too materialistic. He was reminded of the story of a man engaged in the poultry business who had been feeding his hens bran. One day, however, he decided that it would be cheaper to feed them sawdust, and that not likely they would detect the difference. So for some time he continued to feed them sawdust and the hens continued to lay as usual. By and by, some of the eggs were hatched out, but what was his dismay when he found that half of the brood were woodpeckers. If we get too much sawdust in our educational courses, by unduly exalting the material and subordinating the ideal, there is grave danger that we shall develop citizens whose supreme aim in life will be to grub and to grab after the almighty dollar.

When asked as to the value and efficiency of our system of education, we point with pride to the large sums of money and liberal grants that are being paid to advance technical education: we speak hopefully of the growing interest in vocational training in both urban and rural schools, but in the matter of an adequate general education for the masses, and particularly as regards character building, we confess we have fallen short of what is necessary to make democracy safe for the world.

A prominent science graduate of one of our Canadian colleges, in an address delivered at the O. E. A. a few years ago made this statement. "The most efficient citizen is not he who is most efficient industrially only, but he who is also fully aware of the just rights of others and recognizes them. We need a complete change of mental attitude toward social questions. Our much-lauded individualism has made us socially indifferent. It is a result of our education, and the educational system that produced it must be modified. Vocational training alone will only exaggerate the individualism. We must have not only efficient individuals, but efficient citizens. Now is the vital time. While introducing the vocational half of a practical educational programme, as we are doing, let us not fail to introduce the humanitarian half that will lead to intelligent and efficient citizenship."

Archdeacon Cody in a recent address says,—“Sound education is of special value in relation to the present generation of school children, both because they will have added obligations to fulfil by reason of the death of so many of their immediate seniors, and because they will grow up in an altered world. It has been aptly said that whatever we wish to see introduced into the life of a nation must first be introduced through its schools and universities. The children of to-day will be the nation-builders of to-morrow. Here we have a great land of the second chance. Let us realize that the supreme things in life are not material things, but the immaterial and spiritual realities of sacrifice for a worthy cause.”

One of our provincial educational journals has this to say in a recent editorial article:—“The failure of our educational system lies in the fact that while we have trained the mind, we have not properly developed the moral sensibilities or the ethical side of life, hence the former has become the dominant influence in the lives of a large proportion of the master-spirits in the various walks and callings of life. Such a condition always favours spiritual suicide, and its continuance develops into an eating cancer at the vitals of civilization.”

Moral development, industrial training and intellectual schooling must be made the three-fold education of the future. A supreme duty confronts parents and teachers to-day. The moral verities must be placed in the ascendancy, if our nation is to

achieve its highest destiny. Character—a high, noble, true manhood, grounded and rooted in love of truth, justice and human sympathy—this must be made the supreme object and aim of twentieth century education.”

One of the greatest scholars in the old land while discussing modern educational tendencies, made use of these words which I think we do well to ponder:—“ The great need in modern culture, which is scientific in method, rationalistic in spirit, and utilitarian in purpose, is to find some effective agency for cherishing within us the ideal. Literature may aid us as a defence against the narrow and utilitarian tendency of modern culture, but it must be the literature that passes beyond and above that which is local and limited, or coldly scientific into the region of the spiritual and eternal.” The National Council of Educationists, which recently met at Ottawa, spent much time in discussing how the status of the teaching profession could be improved and how to secure for children a better chance of being taught the fundamentals of good citizenship. The convention also appointed committees to go into the question of a survey of all text books, with a view to finding what moral and spiritual influence exists in the school curriculum and also to inquire what is being done in the teacher-training schools to prepare teachers to develop the personality and to influence the character of the pupil.

These references, I think, are sufficient to indicate that there is a general agreement amongst educationists in Great Britain, United States and Canada that the educational pendulum has gradually been swinging from the extreme ideal of purely disciplinary training to the other extreme of training that is largely utilitarian in its aim. The application of scientific discoveries and inventions to industrial development during the last sixty years has caused such a rapid increase in wealth that there has been a growing tendency to view everything from the dollars and cents standpoint. Science has improved the methods, enriched the content and greatly modified the aim of education.

If we are to arrive at the true educational ideal we must avoid the falsehood of extremes. Cultural and vocational training must both receive adequate recognition in our courses of study. It would be idle to boast of progress along the lines of vocational and

technical instruction, if there is only a meagre background of mental training, general culture and character development. As well might we boast of success in grafting living branches upon stunted stems. Larger responsibilities of citizenship, than ever before, are now placed upon the masses of the people. It is, therefore, of first importance that each individual citizen have such a mental training as will enable him to think clearly and logically; such a knowledge of the well recognized essential subjects as will give general culture and intelligence; such a moral training as will indelibly impress upon his mind the noblest ideals of life and conduct, and such physical fitness as will complete the ideal of a sound mind in a sound body. This with such a measure of vocational training as may advantageously be associated with it, should constitute the necessary educational equipment for efficient citizenship, so far as the ordinary avocations of life are concerned.

Modern life, at its best, demands both culture and efficiency, therefore the school curriculum as a whole should be made up of those activities and subjects that contribute to both. What then is culture? Its elements, I think, are five: appreciation of beauty, a rich and well-controlled emotional nature, many-sided interest in life, sympathy and a well-trained mind. The man of culture is he who obeys the golden rule most implicitly. And how shall we define efficiency? Its elements are five also:—practical skill, industry, physical vigor, certain social qualities and a keenly alert mind. Culture deals with the spiritual, the emotional, the esthetic: Efficiency rules over the realm of materialism, of practicalness, of utility. Culture says: "Be honest, for honesty is a virtue." Efficiency says: "Be honest, for honesty is the best policy." Culture says: "Be courteous, for true courtesy is of the heart." Efficiency says: "Be courteous, it is good business." The happiest and most useful individual is he who combines in his personality true culture and practical efficiency.

What constitutes the real soul of a system of education is what matters most. Our conception of education must be deepened and widened. Education should be viewed, not only as a means to an end, but also as an end in itself. The ideal education not only helps us to make a living, but enables us to live a richer, fuller life. An educational system in which the disciplinary and the practical

are properly blended should develop citizens of strong character, with resourceful ability to think, with a general knowledge of the best everywhere and a particular knowledge of the best in the vocation that he is to pursue.

In this address I do not wish to minimize the importance of the so-called practical phases of education which are now receiving considerable attention. It is necessary and right that these should receive reasonable recognition in our courses of study. I wish, however, to point out the danger of estimating the effectiveness of our educational system in meeting the needs of the present day, chiefly upon evidence of advancement along the lines of technical and industrial training. The success of our system should rather be estimated by the extent to which it is effective in shaping the ideals, moulding the characters, conserving the health and training the minds of the masses; so that they are capable of guiding the destinies of the state. The school children of to-day are calling to us for bread, let us not give them a stone.

The courses of study in connection with the Workingmen's Educational Associations in Great Britain and Canada do not deal exclusively or chiefly with industrial training. They are intended to give a liberal and not a technical education. The chief concern of the working classes who have demanded this education is that they may become more efficient citizens, hence their desire to know more about political science, economic history, industrial development, social evolution and literature. The fact that these adults realize their great need of more general education to meet the demands of the new age should impress upon our minds the necessity of making a good general education the basic aim of our primary and secondary schools.

In Denmark, where the problem of more advanced education for rural communities has been so successfully solved by the Folk High Schools, it is important to understand that these schools are not primarily vocational schools. They do not emphasize directly the practical aspects of farm life; they give something that has proved to be of vastly greater importance—a broad culture, a devotion to home and soil and native land, a confidence and trust in one's fellow man, and a realization that success in life is measured by standards other and higher than mere money-getting. The

adherence to ideals such as these, accounts, in large measure, for the remarkable success of co-operation as it has been worked out in every form in Denmark. Of course there are special schools which give a special training in agriculture and household science for those who desire it.

The rural elementary schools of Denmark also emphasize to a remarkable degree the fundamental school subjects and do the work in them in a most thorough-going fashion; but at the same time the entire course of study is so rooted in the soil as to inculcate in the pupils a love of soil tilling as a life calling. As a rule, also, the Danish people are so imbued with the value of education that they will make any sacrifice to keep their children in school. The uniform thoroughness which marks these elementary rural schools is clearly explainable in well trained teachers of long tenure in the same community. The majority of these are men who rank high socially and who are usually leaders in the community. In addition to special emphasis upon the well recognized essential subjects careful consideration is also given to religious instruction, nature study, music, handwork and gymnastics.

So far as the rural schools of this province are concerned, there is apparent need at this time to emphasize the necessity of a more thorough training in the fundamental subjects which are the key to the pursuit of all knowledge. The public school course of study has become so extended that it now comprises so many subjects that the average rural school teacher has to teach from thirty to thirty-five lessons per day, with the result that education is apt to become a process of stuffing in rather than of drawing out and developing. Moreover, the great majority of the teachers in these schools have had very little experience and are, therefore, not likely to be as thorough in their methods or as capable of effective organization as more experienced teachers. Then there is the irregularity of attendance in many of the rural sections to contend with. This, I believe, is due mainly to three causes—scarcity of help on the farms, distance from school and lack of enthusiasm for education on the part of the parents. With these difficulties and disadvantages in the way it would not be surprising to find that a considerable number of the boys and girls in the rural schools are receiving a rather imperfect and superficial edu-

education. When we consider also, that at least ninety per cent. of them get no school training beyond that of the public school, while many of them do not complete the public school course, we realize how inadequate their educational equipment is for present day requirements. Consolidated schools would no doubt greatly improve and extend rural school education and would overcome or greatly modify the disadvantages and difficulties which I have mentioned: but before any very radical changes can be put into general operation, a great forward movement campaign seems to be necessary in order to stimulate the educational ideals of the people. Legislation that is much in advance of public sentiment cannot prove very effective. It therefore becomes an important duty, both for those who make our educational laws and for all who are engaged in the work of education to be persistent in their efforts to create a public sentiment that will permit of the most advanced legislation desirable. In the meantime it would seem to be clearly the duty of the provincial legislature to make, without unnecessary delay, such changes in the School Act as will remove obstacles that are standing in the way of much needed reform.

While there is much that is worthy and much that is to be commended in our provincial system of education, both in the past and at present, we must confess that in some respects at least it has not measured up to a true educational ideal. The spirit of materialism which is abroad has commercialized education to such an extent that the masses fail to appreciate the value of education except in so far as it contributes to material gain. The idea that education is the most vital force in democracy and that a nation's greatest asset is educated and enlightened citizens has not taken hold of the minds of the people in a deep strong sense. The people have also failed to appreciate the splendid efforts of those engaged in the noble work of teaching, hence the resort to strikes and unions on the part of teachers, which should never have been necessary, to secure adequate recognition of a profession of such great national importance. These failures are no doubt in some measure due to defects in our educational system. Education that fails to create a reasonable degree of enthusiastic appreciation of its value is surely not ideal in its nature.

As an illustration of this lack of educational enthusiasm, I might refer to the remarks of a citizen of one of our cities who

recently visited several rural school sections which he had known intimately as a boy some thirty years ago. He says, "I was more than struck with the tremendous improvements in the farm buildings and farm homes. In everything they seem to have made improvement except in the school houses. In not a single case do the appearance of the buildings or the grounds show one trace of improvement in conditions in the past quarter of a century. Ontario, at least to a very great extent, in its rural districts, is asleep at the switch so far as education is concerned."

Truly the Ontario school system has been subjected to a great deal of criticism, but much of it has been destructive rather constructive.

A very prominent educationist in Ontario recently stated that the educational system of Ontario is theoretically perfect, but practically a dismal failure. Another critic says that the schools of Ontario have been systematized, methodized and inspected to death, with the result that there is no originality or initiative left in them. He further states that we are not building up character in our schools, but rather a wobbly, shallow superficiality that crowds out serious scholarship and sound thinking.

If these criticisms are in any sense justified it would be interesting to inquire what are the contributing causes. I would say that the chief causes are (1) such a large percentage of teachers, especially in our rural schools, are young women of limited experience and hence immature in thought and character, (2) the small number of men who are making teaching their life work, (3) the frequent change of teacher in so many of our schools (4) the crowded curriculum and the exaggerated importance of examination tests which have tended to superficiality and cramming rather than to sound scholarship, (5) failure to keep our educational administration up to date, (6) the fact that eighty or ninety per cent. of our pupils leave school at fourteen years of age or younger and at this critical and impressionable age are left free to shape their own ideals according to the influences with which they come in contact. This might be called failure to educate the adolescent, (7) failure to adequately provide for moral and ethical training in the school. In this connection we might mention the neglect of so many homes to properly co-operate with the teachers

in character building. This neglect of the home is producing alarming results. A prominent physician remarked to me a few months ago that it made his blood run cold to observe what was happening as a result of the seeming indifference of so many parents to the moral welfare of their children.

If we have diagnosed correctly some of the defects in our school system, the next question is, what is the remedy? My answer is that, so far as the rural schools are concerned, I think a more or less complete reorganization of the entire system is required. No remedy will be adequate, that fails to provide a larger percentage of male teachers, as well as a more extended and thorough educational training for the ninety per cent. who have hitherto not gotten beyond the public school course. As the premier stated in a recent address, the educational policy of Ontario should be, not simply to provide a narrow ladder on which the few may climb to educational fame and public prominence, but rather to provide a broad stairway on which the masses may reach such a degree of general intelligence and sound scholarship as will enable them to become worthy citizens of this great province.

Might I say before concluding my address that while our provincial educational system has been severely criticized, and while we admit that some improvement is needed, yet, I think, we are justified in saying that during the last fifty years few countries in the world have had a more efficient system. The real aim of education is training for effective citizenship, and judged by this test our system has proved reasonably good. There has been maintained a high average of general intelligence among the people of the province, while it must also be remembered that nearly one-half of the Canadian Army, which in the recent war, displayed such magnificent initiative, resourcefulness, courage and heroism, were educated in the schools of Ontario.

Let me say a word also about the little red school which has come in for much severe condemnation. I believe this school, with all its faults, has been the best of its type on the American Continent, and it has been the best largely because of the specially trained teacher in charge of it. Many of our most prominent citizens during the last half century received their first educational training in the back-country school and owe their success in no

small measure to the teacher who inspired them with noble ambitions which became wrought into the warp and woof of their lives. But notwithstanding the splendid work it has done for so many years and is still heroically endeavouring to do, conditions have so changed that a new type of rural school is needed to give to the rural children that more extended and thorough education which the new conditions of life make imperative. The pioneer type of school was gradually replaced by the little red school, because of changed conditions, and for the same reason, this, in turn, will be gradually replaced by the consolidated type of school. But before any marked advances along this line can take place the people of rural Ontario must have their educational ideals enlarged.

Perhaps we as public school inspectors also need from time to time to enlarge our educational ideals. We may be spending too much time and effort in seeing that every petty detail of the regulations is scrupulously observed, while less concerned about giving encouragement, inspiration and direction along educational lines which is so important during this transitional period. Of course, we are pretty rigidly tied down in the matter of visiting schools and making reports, but possibly a little more flexibility in the regulations governing the duties of inspectors, would produce better results during this time of reconstruction.

Let me repeat again that while I have endeavoured in this address to make a plea for the adequate recognition of the cultural and humanitarian phases of education in our courses of study, I have no intention of attempting to belittle vocational training which is being so much lauded at the present time. In this period of great industrial expansion, when it is so important that the youth of all democratic countries should be taught the dignity of labour and the necessity of thrift, it is highly essential that training of an industrial type should receive due consideration. But I firmly believe the best educational training for efficient citizenship under present conditions is a rich background of general culture and mental development, with a moderate amount of vocational and technical knowledge. The importance of developing well-informed and intelligent citizens should be as clearly recognized as that of training efficient workers. Moreover, out of the heart are

the issues of life, and education that fails to touch the heart and ennoble the character in a very real and vital manner will never make democracy safe for the world or prove worthy of twentieth century civilization.

The old social order which was ripe for a change before the war began, was brought tumbling down as a result of the war; and whether the new order which is to take its place will be better or worse than the old, will largely depend upon the influence of the home, the school and the church. But under modern conditions the average home is not functioning properly so far as the training of children is concerned, while great masses of the people are not coming directly in contact with the influence of the church. Therefore, the chief responsibility for shaping the ideals of the new democracy devolves upon the school. Can our schools measure up to this responsibility? Yes, if they are placed in charge of well trained, well paid, scholarly and enthusiastic teachers, who will impress upon their pupils the ideals of the Great Teacher who said, "He that saveth his life shall lose it and he that loseth his life in useful service shall save it." The individualism, selfishness and materialism of the old order must give place to co-operation, altruism and humanity in the new order.

Let me close with the following lines from Tennyson, which present an ideal, to the attainment of which our educational efforts should be directed.

Ring out the old, ring in the new,
Ring out the false, ring in the true.
Ring out the feud of rich and poor,
Ring in redress to all mankind.
Ring in the love of truth and right,
Ring in the common love of good,
Ring out old shapes of foul disease;
Ring out the narrowing lust of gold;
Ring out the thousand wars of old,
Ring in the thousand years of peace.
Ring in the valiant man and free,
The larger heart, the kindlier hand;

*THE ENFORCEMENT OF COMPULSORY SCHOOL
ATTENDANCE AND THE ADVISABILITY OF
EXTENDING THE AGE LIMIT.*

A. L. CAMPBELL, B.A., PUBLIC SCHOOL INSPECTOR, WESTON.

I take this to mean a somewhat general discussion of school attendance with its enforcement, with a brief reference to the Act respecting the School Attendance of Adolescents.

Much has been said and written about school attendance, making it difficult to keep from quoting from excellent articles that have appeared from time to time in educational publications. A year ago, when the paper on this subject was to be given, I intended to congratulate the Minister and the Government upon the distinct advances made by the two acts respecting school attendance which promise a clearing up of the waste places of irregular attendance and adolescent lapsing; but, now, congratulations, perhaps, had better be delayed until we see the working out of these acts—and then felicitate those who have the most to do in making them a success.

It is no longer necessary to argue the right of enforcement of Compulsory school attendance. We agree with the statement and conclusion of the U. S. statistician who has calculated the expense of Indian wars and the number of Indians killed in them, and the expense of the Indian schools and the number of children educated in them, and concluded that it costs more to kill an Indian than it does to educate him; drawing the conclusion further that it costs more to protect the community from people who have been allowed to grow up to be idle and criminal characters, than it does to educate them for a life of intelligence, industry and virtuous citizenship. "Compulsory education is not only justified but demanded on two grounds—the duty of the State to protect the rights of its children, and the duty of the State to protect itself."

A preliminary consideration, perhaps not strictly necessary, to the intelligent enforcement of compulsory attendance, but advisable, is a better method of registering and compiling statistics of attendance. We should be able easily to arrive in absolute

terms at the percentage of loss for the month, term, or year through irregular and non-attendance. We can then speak with certainty of present waste and make telling comparisons when the Attendance Act has been in force a reasonable time.

To satisfy myself, I had my teachers make, last Fall, a careful record for each of the four months of the term, of the possible attendance, the actual attendance, and as nearly as possible, the total of unavoidable absence. The returns were made to me at school closing on sheets sent out, showing the attendance in the three townships of eighty-one per cent. to eighty-two per cent., and in the four urban schools about eighty-five per cent. With attendance officers, now, in all the municipalities, the figures, of course, should be even better. I am glad to know that the Provincial Attendance Officer is making provision in the school registers of 1921 for the monthly record of possible and actual attendance.

In order to advise teachers, and maybe to restrain over-zealous attendance officers, it is necessary to analyse truancy and understand some of its causes and cures. An experienced truant officer of a large American city says, "Truancy in children is delinquency, and delinquency is in most cases incipient crime." We may not go that far, but the question of truancy, in its effects, is of vital importance. We agree at once that the ideal truancy department is one that not only compels attendance at school, but one which also enlists the co-operation of teachers and laymen in the work of preventing all kinds of juvenile delinquency. In the analysis of the causes, it is the opinion, or rather, we know that environment is largely the determining feature. For example, it has been computed beyond dispute that eighty per cent. of truancy is the result of indifferent or negligent parenthood. Our present law, then, must teach parents that they have some responsibility in the matter of school attendance of their children. The extent to which we shall leave this to the literal enforcement of the Act, or employ the tact of teachers to accomplish something, as well as make convenient occasions for ourselves to meet and influence parents socially at the school or upon other occasions, depends upon certain conditions. One thing is certain that as far as possible the school must be used as a well equipped agency to correct

environment. I do not think training schools can do any more than they are doing at the present time to impress teachers as to their responsibility in community betterment, or to better equip them with means to exert their influence towards this end.

The other causes of truancy or irregular attendance are poverty and need, physical defects in children, and children beyond parents' control. A friendly visitors' association might help to remove the cause of irregularity on account of poverty, and medical inspection might lessen that from physical defects. For the boy or girl who has outgrown home control there might be given a report card which is to be shown monthly or at longer intervals to the attendance officer.

The consideration of the causes of truancy, that is, avoidable absence from school, leads to the inquiry as to what share of the conditions of irregularity belongs to the school. The story is told of a boy writing a composition on Pins, saying, "Pins have often been known to save peoples' lives." The teacher challenged the statement by asking, "How?" to which the boy replied, "By their not swallowing them." By a similar line of reasoning some share of the blame for the adverse conditions of attendance belongs to the school for its not trying to remove them, in part, at least. As already intimated inefficient parenthood is one of the heaviest curses resting upon the country. Is the school, to-day, training the children of inefficient parents in such a way that when their time comes they will be more efficient?

The school must assume full blame for the unattractiveness of its own work. The majority of children get along notwithstanding the dullness of school routine; but there are special or difficult cases for whom the school must take responsibility for failure to meet their needs. A difference must be made between the case where the non-attendance is due to the indifference of parents and the case where the child absents himself without the knowledge of his parents. It is reasonable to consider the school wholly to blame for the latter?

It is not to be expected that we shall all agree upon the methods to be employed to overcome the evils of irregular attendance. The following conclusions you may not regard tenable in every case; but they are given as appearing reasonable and necessary.

1. Along with the work of the attendance officer there must be full co-operation of all concerned.

2. The every-day work of the teacher in the school room and on the playground in interest of teaching and attraction of school games and school life is an important factor.

3. Every opportunity of securing the interest of the home through school reports, public examinations, school fairs and other similar work should be made use of.

4. It is of little use to talk to parents of the financial loss through carelessness or irregular attendance, nor about the moral and educational loss to their children, until you have secured their intelligent interest and made them feel that the problem of education is theirs.

5. There never was a time in the history of the world when the training and protection of children was as important as it is to-day. Should there not therefore be, along with our Attendance Act, a good Child Labour Law establishing an educational minimum, a physical and an age minimum?

6. The only adequate basis for the enforcement of a compulsory educational law is a permanent school census which identifies each child, keeps track of him, and locates him at all times, besides forecasting the number of children for whom education is to be provided. It seems to me that the school inspector with the help of his teachers is the one best able to keep a permanent school census.

In conclusion much might be said about the Acts respecting the attendance of children of school age and adolescents, but it is not necessary as all are familiar with the provisions of these Acts. Regarding the Act respecting the attendance of adolescents, I would say, to my mind, it has three main qualifications. It will be adequate, it is reasonably compulsory, and it will come into force by proclamation when its clauses have passed careful judgment and the public generally come to see, that while it is radical, it is also indispensable, if the youth of our country are to receive anything like adequate preparation for useful and sane citizenship.

VIMY RIDGE UNIVERSITY.

H. E. AMOSS, B.A., D. PAED., HAMILTON.

The Vimy Ridge University was an educational experiment instituted December 1st, 1917, by the late General Lipsett. O.C. III Division, Canadians; with a threefold purpose (1) the maintenance of "Canadian initiative" by substituting rational for routine military discipline, (2) a preparation for the interval preceding repatriation, (3) a preparation for the period of reconstruction. It was a purely military organization, independent of, but tremendously indebted to, the Y. M. C. A., Chaplains' Service and Khaki College.

Captain Oliver, C.A.M.C., Chaplain, formerly President of Saskatoon University, was made O. C. Education. Fourteen instructors were chosen from the lists of suitable men, sent in to H. Q. by the various units. A Normal School was opened at Ferfay whose session lasted one day. On December 3rd, central schools were organized at Ferfay among the C.C.R.C. and III. Division Wing School men; two French school-houses being utilized from 5 to 9 p.m., and travelling schools instituted among the P.P.C.L.I. the 49th, the 42nd and the R.C.R., who were out at rest at St. Hilaire, Baracque and Relay. An endeavour was made to discover (1) what the men wished to study, (2) how that instruction could best be given under such unusual conditions.

A curriculum was drawn up offering instruction in Business Efficiency, Agriculture, Applied Science and Civics—the latter included "French" always a most popular subject. This order of subjects shows also the degree of interest on the part of the war.

The democratic nature of the institution is well illustrated by the refusal of the chief cook at Ferfay (formerly employed in the Ford Works) to continue his study of reading and writing, because the English language was not efficient, its spelling was not standardized like the parts of a Ford machine and was as out of date as a 1906 car. However, the opinion of a cook, even an illiterate, was received with every respect in those days.

During the latter part of December, the III. Division moved up the line. The travelling portion of the University followed, establishing schools in the Mines building at Les Brebis, in a tent (marquee) at Souchez Valley and in a tent, afterwards in the pack room of an estaminet, at Mazangarbe. The men were six days in the front line, six days in supports and six days in reserve among the schools. The continuity of the classes was thus sadly interrupted, and this led to the conception of the library method. Lieut. Gilmour, who had been made adjutant of the forward schools, was immediately despatched to England; and returned within a week with twelve hundred volumes, mostly technical or semi-technical works on the four subjects comprising the curriculum. This library was divided among the four schools.

This educational idea spread to Corps and even to the Imperial Army. In February, when the III Division went out to rest about Anchel, the schools were completely reorganized. O. C.'s of Education were appointed (1) for the III. Division (Captain Oliver having Corps work on hand), (2) for each brigade of the III. Division, (3) for each battalion in these brigades and for the Division artillery. Instructors were selected from each unit to carry on the work in that unit.

During the month of February 1918, most successful schools were held. The class method and library method were supplemented by a method of popular lectures and by individual instruction for higher pupils. Academic instruction, save for those trying for Canadian University or school credits, was completely abandoned. A direct study of life was substituted for the study of abstract principles. For instance, fractions in arithmetic were taught incidentally in lessons on buying, selling, building, etc. The boys would not stand for fractions and decimals "per se." History, a hitherto unpopular part of civics, suddenly became extremely popular when the spotlight was flashed from a study of Napoleonic Wars and Constitutional Acts to referendum, recall, conscription, etc., in the study of which the experiences of history were used as a source of argument. It is possible that our present school curricula present life too much in the abstract.

In March, the III. Division took over the Vimy Front. Nine schools were established at reserve positions. The class and lecture attendance averaged over 1,500 per day. It looked as if the University was established on a firm footing. Great preparations were under way. Then came the German drive of March 21st. Every man being needed in the struggle that followed, the University was closed, the officers and men returning to their respective units.

NOTE.—*Dr. Amoss acted as professor of mathematics and science in this experiment.*

A BETTER SYSTEM OF ADMINISTRATION FOR RURAL SCHOOLS.

HENRY CONN, B.A., PUBLIC SCHOOL INSPECTOR, SARNIA.

Three Systems of School Administration have been developed on this Continent. The oldest of these is the District System. It is not my purpose to discuss the merits or demerits of this system. The demerits are well known to everyone engaged in the work of supervising rural schools in Ontario; and the fact that this system came into general use, both in Canada and in the United States, not merely in the rural districts, but also in urban centres, is convincing proof that the system had merits.

From its inception, it was criticized on the grounds that the unit of administration was too small. In 1831, a School Bill which made provision for township boards was introduced into the Legislature of Upper Canada, and the late Dr. Ryerson strove throughout the whole period of his administration to secure the adoption of township boards.

That a larger administrative unit would be productive of better results is indicated by the fact that in a general way our village schools offer better educational facilities than our rural schools; that our towns offer better educational advantages than our villages; and our cities, better educational advantages than our towns. That is to say, the excellence of the educational facilities is approximately proportional to the size of the unit of administration.

The movement for a larger administrative unit has made little headway in Canada. In United States, however, it has made great progress; and up to the present time practically all that portion of the United States lying between the Mississippi River and the Atlantic Ocean has abandoned the district system. Township boards have been adopted in about thirteen States, and county boards in eleven States. In a general way, the township board finds favour in the north and the county board in the south. As the movement began in the north and spread south, it is evident that the present trend in the United States is towards county boards rather than township boards.

The township system has been in operation in some of the States for many years. It has been subjected to the test of experience and it has been found infinitely superior to the district system which it has displaced. But the test of experience also indicates that with modern means of communication the townships are too small to give the best results. As our townships are considerably larger than those in the States we are not likely to experience the same difficulty here.

There is another and more serious weakness in the township system due to the fact that our townships are purely artificial districts. The township area bears no relation whatever to natural community areas which vary in size and shape to meet local needs. The township boundaries run in straight lines and bear little or no relation to geographical features or to natural community boundaries; and it is commonly broken into by the incorporated town or village. If one imagines a city school district hampered and restricted in this manner he will readily recognize that the artificial and arbitrary nature of the township boundaries is a serious source of weakness in the Township School System.

The county system is free, or nearly free, from these defects. It provides an administrative unit of adequate size; natural community boundaries are not disregarded to any great extent; and rural, village and town schools all benefit from an administration capable of transforming them into more useful social institutions.

The county system has greater possibilities than the township system. It may be expected to develop a better type of school board. The board's duties and powers are of sufficient scope and magnitude to place its members in touch with larger educational problems; the boards will have a proper appreciation of the importance of the work of the schools and its bearing on our future national welfare. The system would provide an effective barrier to over centralization which smothers local enterprise and initiative. It would develop a local liberty in non-essentials and give the people a sense of freedom which would stimulate to greater and more enthusiastic educational activity.

The township system has the advantage of age. It has been tried and tested: and its weak points and strong points have been

clearly and accurately determined. This is not entirely true of the county system which is of comparatively recent origin. If we adopt the township system, we know exactly what we are getting; we know its possibilities and we know its limitations. But if we adopt the county system, we are to some extent making an experiment in school administration.

The county system is the natural system where there are no townships. In such cases it is simply a question of choosing between the district system and the county system. I have the impression that this is true of British Columbia where the county system is in satisfactory operation. But in Ontario we have townships and consequently the county is not a taxation unit. I am of the opinion that the fact that the county is not a taxation unit will prove a somewhat serious obstacle to the successful introduction and operation of the county system in Ontario. At any rate it is a point which should be very seriously considered.

Three systems of rural school administration have been developed on this continent; the district system, the township system and the county system. The first of these is cumbersome and inefficient. It has survived its usefulness and is in process of displacement. Either of the remaining systems offers immense advantages. It is to be hoped that one or other of them will be brought into operation in Ontario in the not too distant future.

SOME NON-STANDARDIZED TEACHER REQUIREMENTS.

C. E. MARK, B.A., D.P.ED., NORMAL MODEL SCHOOL, OTTAWA.

It is a far cry from the days when the public was satisfied to place its youth in the hands of the discharged and broken-down army veteran, frequently of loose morals, and more often with scant scholarship, to receive the rudiments of reading, writing and arithmetic, to these days when higher and more varied qualifications are exacted and the service demanded covers almost the whole field of human endeavour. The teacher to-day must be equipped to touch life at many points. He must be able to impart information; his work coincides with that of the ministry where character building is considered; he enters the domain of medicine when habits of healthy living are being inculcated; he is a lawyer in the best sense of that term when he instils a wholesome respect for law; as a business-man he trains in principles of banking pennies; he is a justice of the peace as he dismisses the youthful offender on suspended sentence for throwing snow-balls at passers-by; in fact, he must be qualified to do anything and everything for the child which the homes are unable or unwilling to do for him. He must take the blame for most of the deficiencies of his pupils for the environmentalists will have it that the teacher is father of the child. A recent writer in one of our leading dailies claims that the teacher is to blame for boys leaving the farm for the city even though the father may have made farm-life a dull monotonous round of endless chores, rising with the sun, retiring with the chickens.

There are many conditions which render a still higher grade of service imperative. Each generation should expect to stand on the shoulders of that preceding it. Changes in the economic and political world, the extension of the franchise, the presence of a large proportion of foreign immigrants awaiting assimilation, the growth of the democratic principle, the need of a more efficient citizenship in the interests of national economy and increased production, all demand a greater degree of intelligence among the mass of the people. Only thus can democracy, to use a fashionable phrase, be made safe for the world.

And naturally the growth of enlightenment in the community at large demands a more enlightened and better qualified teacher supply. The teaching profession is probably to some extent unique in the progressive nature of its standards. Sometimes new ideals are established by pioneers, who blaze new paths, attain great heights, and beckon to the rest from above; but always there is an upward pressure from below, from among the taught. Work efficiently done in this generation creates a demand for still better work in the next. Parents with a somewhat widened horizon have ambitions for a still wider outlook for their children.

A clear conception of the end necessarily antecedes the adoption of the best means to attain that end. It is needful to know the ideal teacher before we can determine the best content and method for a course of training. Certain elements in our ideal, long and universally accepted, have been reduced to measurable terms. The standards are current for long periods of time and for wide areas. In this category may be placed some common phases of scholarship. Knowledge of facts is easily tested; ability to draw correct conclusions may be estimated without difficulty. There is, however, even in scholarship a factor which has been largely ignored when tested by either a written or oral examination. The reference is here to the candidate's power to make use of sources of information which are available to the average man in his library and elsewhere. This is his normal and practical way of doing a piece of work. Such power might be easily valuated, and the granting of certificates should, to some extent, be made dependent upon it. The aspirant to a Normal Entrance or Entrance to Faculty certificate should be sufficiently matured to be tested in this respect.

Assuming, however, that the written examinations, both Normal Entrance and Normal Leaving, are adequate means for measuring scholarship, there remain to be pointed out several important requirements in a teacher which have not as yet been satisfactorily reduced to standards negotiable at par throughout the province. First and foremost is that factor, of which almost everyone may speak most glibly and to which everyone attaches considerable importance. It is one, however, whose content varies with each individual sitting in judgment upon it and whose value will be

variously estimated from that of a highly desirable adjunct to **that** of a fundamentally essential *sine qua non*. I refer to the factor of personality.

I think it was just ten years ago a paper was read before this section, in which the speaker said that fully ninety per cent. of a teacher's effectiveness was due to personality. That statement was applauded by the training section and perpetuated in its minutes. The departmental regulations pertaining to conditions of admission to a Normal School dismiss this qualification with the cursory stipulation "that a certificate from a duly qualified medical practitioner shall be presented to the effect that the candidate is free from *abnormal conditions of appearance* which would interfere with his work as a teacher." There are many cases throughout the province where Trustee Boards engage their teachers through the medium of a written application. Here, again, the matter of personality seems to receive scant consideration.

The assumption in such cases would seem to be, either that personal qualities are a matter of secondary importance, or, that in some miraculous or occult manner somewhere between the time of application for normal admission and the time of certification, those responsible for the training of the candidate have succeeded in supplying the necessary qualities. It is true that much can be done in this period to develop and direct latent or embryonic powers, but, of course, only within the stubborn limits fixed by nature. To use a homely metaphor quite open to criticism, heredity shapes the mould into which environment may pour its content.

It is also manifestly true that a candidate very strikingly deficient in these characteristics will doubtless be eliminated *during training* from the number of those to be successfully certificated. On the other hand it is equally true that those in charge of the training are not always agreed upon what constitutes desirable personal attributes; they possess no common unit of measurement as is obvious from cases where experts differ in the valuation of a lesson. Many of you can probably cite cases of estimated values with a range of variation as high as thirty per cent.

In a recent study conducted by an American training school, in connection with the rating of student teachers, we find that they arrived at a valuation for four main qualities of merit essential in a teacher, as follows: Preparation, twenty per cent.; Personality, twenty-one per cent.; Class Management, twenty-three per cent.; Teaching Skill, thirty-six per cent. Our criticism of such a basis for grading would obviously be the fact that the four qualities are not mutually exclusive, they overlap. The most important factor in Class Management is personality. Similarly, teaching skill apart from personality would be placed low on the list with us. Our plea is for a greater recognition of the personal factor.

For such fuller recognition, as is advocated here we need a clearer and more comprehensive definition of the term, one that will include all that we mean by such expressions as moral qualities, sympathy, enthusiasm, optimism, buoyancy, tactfulness, self-confidence, resolution, devotion to duty, power of prolonged application, concentration, executive ability, leadership, initiative and all the other personal qualities by which a class is constantly influenced for good by its teacher.

Just as a nitrogen lamp is a delicate, highly specialized piece of mechanism and shines with a bright light, but without the current is worthless, so personality is what vitalizes all the knowledge of facts, laws, principles, methods and devices, and constitutes a teacher.

It is the business of education to build personalities and nothing can affect personality like personality. Education consists in making people like what they ought to like, and nothing can mould the æsthetic and moral nature like contact with a living force.

The National Council of Education, meeting in Ottawa a few weeks ago, passed a resolution "that an inquiry be made into Canadian institutions where teachers are trained, to prepare them to develop personality and to influence the character of the pupils."

What can be done to improve the present situation? Since it is not possible to enter the pedagogical fold save by the doorway, the pillars standing on either side at the entrance to which are regulations of the department, would it not be an easy matter to instruct the guardians to exercise a greater vigilance in keeping out unworthy intruders?

Could we not profit by a glimpse at a means of recruiting the profession that is used in a little country in Europe north of the Tweed. Here the prospective candidate for a course in a teacher training class must furnish "a report from his last principal teacher, having particular reference to those qualities which seem to make for or against the applicant's ultimate fitness for teaching work." With a view to forming a judgment the principal may, during the three months immediately preceding the application, employ the applicant in giving instruction under supervision in the primary classes. Some adaptation of this idea would accomplish much towards eliminating those temperamentally unfitted before allowing them to become well established in a Normal School where sympathetic and kind-hearted principals hesitate to eject any save those impossible cases which sometimes appear. Thus many indifferently equipped candidates pass through.

To say that the inadequate supply of teachers would not warrant any such method of reducing their numbers, but raises the question of a responsibility resting upon another quarter, the rate-payers. They must make the position sufficiently attractive to induce men and women of the best calibre to qualify for it. A simultaneous movement on the part of ratepayers and training authorities would prove mutually stimulating. A raising of the standards would eventually attract a better class of students in larger numbers.

One of the many personal elements which should receive careful attention is that of health, since it is so inseparably linked up with the intellectual and moral characteristics. They act and react one upon the other and mutually determine each other so that it is difficult to say which is fundamental. It will hardly be disputed that ill-health is frequently fatal to that buoyancy of spirit so necessary in a teacher; nor that it leads to either an irritability that is repellant or to a laxity that lowers morale. It certainly is not conducive to that roseate, hopeful, optimistic outlook which is so desirable and so wholesome for youth.

This requirement would seem to be sufficiently safe-guarded by the regulation that the applicant shall submit a certificate from a duly qualified medical practitioner.

- (i) That he is free from heart disease or other serious organic affection ;
- (ii) that he is free from pulmonary affection, defective hearing, or seriously defective eyesight, or abnormal conditions of appearance, and
- (iii) that in other respects he is physically able for the work of a teacher as prescribed in the source of study.

In actual practice this would be more satisfactorily carried out if it were supplemented by an examination by a physician in the employ of the Education Department when applicants present themselves for admission. The Compulsory Attendance Act would seem to imply that the most thorough steps be taken to protect the public, both as a safeguard of health and as a guarantee of a high order of service, so far as this is dependent on a healthy body.

Quite in accordance with this should be a requirement in line with that laid down by the Rhodes Scholarship Foundation that a candidate shall manifest a love for out-of-door sports. One lesson taught by the recent World War, in connection with the enlistment of recruits, has been that some means must be employed to bring our Canadian manhood to a higher physical standard. When almost fifty per cent. are rejected as unfit for active service, we should seriously turn our attention towards an attempt to find a remedy. The Commander-in-chief of the Canadian Forces with this deficiency in mind, proposes to remedy it by establishing summer camps, with four weeks compulsory military training annually, during a period of seven years for each man.

If the teachers of Canada were enthusiasts along some line of out-door sports, be it nothing more than walking, they could probably accomplish more to correct or to prevent physical unfitness than the military camps can hope to accomplish. This result cannot be obtained during the year at Normal School alone. While instinctive in childhood, it cannot, if once neglected, be acquired by an adult in a short time. The elementary schools, high schools and training schools, should all devote more attention to enlisting the interest of all the pupils and students in some form of physical development through games. This is more important than producing winning teams. Enthusiastic teachers are the greatest

need in carrying out such a programme in a regular and systematic way.

Are the young girl student teachers at the Normal Schools, many of whom, spend their entire year between their bedroom study and the lecture room, with spare time spent on the fine and manual arts subjects; who often eat their meals with a lesson plan in their hands; and who so often succumb to an attack of nervous dyspepsia under the stress of a final examination—are these girls being fitted to contribute towards building up a sturdy and healthy boyhood and girlhood?

A certain Canadian College professor, who had seen overseas service and who had had opportunity to observe closely the men under his command, recently made a severe indictment of the work accomplished by the elementary schools, inasmuch as the rank and file seemed strikingly lacking in appreciation of literature, love of nature, and in moral stamina.

The test of moral strength may best be made in times of crises when one is not hedged about with all the restraints of normal life. It was here where the failures were made. While the schools may not shoulder the whole responsibility, they have at least failed to turn out a character product such as we could wish for. The test of a teacher's work or of the influence of the school does not consist in the number of examination papers read, but in the effect upon lives.

It is here again that the personal qualities of the teacher must be called upon for a remedy. It is life that influences character much more than doctrine or theory. We must have teachers with strong moral influence and with keen insight into the moral bearings of their teaching. Not long ago, in a class-room in this province, a dissertation on etiquette was being given which seemed to centre around a general statement written on the board "Manners Maketh the Man." What we want is a class of teachers whose moral insight would at once penetrate such a fallacy and stress the fact that morals are of infinitely greater importance to the individual and to society, than *manners* in the common acceptance of that term.

The departmental requirements in this connection are limited to "a certificate from a clergyman or other competent authority

that he is of good moral character." In theory, this might be quite sufficient, but in actual practice everyone knows how easy it is to get a certificate of character. It is usually largely negative in its import. Frequently it means nothing more than this, that the person concerned while probably unmoral is not immoral, that is, he is not known to violate the commonly approved moral standards of the community, and, of course, he has never been in gaol.

Tried by this standard the teaching profession would rank high. The other day I chanced to look through the report of the Police Commissioner for the City of Ottawa for 1918-19, and found that not a single teacher figured in the list of delinquents. The previous year, however, action for libel had been brought against a teacher at the Fall Assizes by a minister of the gospel, which action when simmered down seemed to resolve itself into a question as to whose ethical ideals were the higher. The case was settled out of court leaving the school master in quite as good a light as the clerical gentleman. This is all evidence of a negative kind.

Since there is a tendency on the part of every idea to work itself out in action unless inhibited, the teacher should hold with strong conviction to positive moral ideals and aggressively promulgate them among pupils at all times. He should be a person who makes his presence felt as a restraining influence when wrong makes its appeal and who can make the right acceptable and attractive. If the teacher's most important function is to build character, then he must be a moral leader and enthusiast. There is scope for his activity on the play ground, in class-room routine, and in the recitation. It is in this latter field that there has been much negligence and, as a consequence, a tendency towards carelessness in work among pupils. This is both a result and a cause of moral indifference. Habits of carefulness, exactness and correctness, are all moral virtues. Every action has an ethical significance. There is a moral obligation to do the best of which we are capable. To explain all mistakes as illusions or to excuse all unintentional errors as harmless, is to ignore this underlying principle. That species of soft pedagogy that seeks to make everything easy and entertaining, or that accepts a carelessly written and untidy exercise, or a poorly given recitation, or a half-hearted

response to disciplinary measures, is morally injurious to the child. It requires a stern resolution and an unswerving, untiring effort to set the standards high and to keep alive the ambition to reach them. The teacher should possess a keen sensibility fully alive to the dangers of the seemingly small aberrations or deviations from fact or truth. As conscience is educable, may we not expect as a desirable product of the school, a child who not only conscientiously tells the truth or refrains from stealing, but who conscientiously does his work? This is one of the world's needs to-day.

This phase of our subject leads us to make mention of a factor, the importance of which will probably win tacit assent from all, but which we so often diligently avoid in discussions on education. It is the settled conviction of the writer that no person can be a safe and effective moral guide who has not worked out more or less clearly a philosophy of life based on the Christian religion. The spirit of unrest pervading the world in all realms economic, governmental, moral and religious, would seem to be due to the fact that our philosophy, the one the world lives and acts on, will not stand the pragmatic test. It fails to work. We have been stressing the individualistic to such an extent that an era of insistence on personal rights, of intensely selfish interests, where responsibility and duty to others is lost in sight of, has been the inevitable result. The founder of Christianity, doubtless, called attention to the value of the individual, but at the same time he emphasized the humanitarian attitude—a life in which one can realize his highest self in service to others. We can see in the suggestion of the National Council of Education, to have a distinctively Canadian character type formulated, a protest against this extreme of individualism.

Who of us would care to place our children in the charge of a person who did not view the things of this life in their proper perspective in the light of eternity, who was not conscious of our divine origin and our divine destiny; or who could not teach them to possess ideals of life and character already embodied in the Person of the great Teacher. Such living ideals are the forces which can stand the strain of severe tests under the most trying conditions. Some one has said that many a British soldier detailed for service in the Indian Army, forgot the ten commandments as

soon as he passed through the Suez canal. If such cases as this be true, the moral sanctions have been the conventional code worn merely as a garment and not permeating the fibre of one's being. Obviously it was a more vital moving principle that has enabled many of the young Canadian soldiers, known to many of you, to pass through situations, with the conventional restraints removed, yet standing the test with their integrity unscathed.

This qualification for teachers-in-training is but vaguely implied in the regulation which reads, "Religious training is provided by local clergymen of the different denominations." Doubtless this is a point that it is difficult to regulate, but if the teacher's work, with all its potentialities for character formation, is to be viewed on the proper plane, if we but recognize the serious responsibility of violating either by errors of omission or of commission what should be every child's rightful spiritual heritage, then the teacher's work must be regarded no longer as a mere profession but as a calling quite as sacred as that of the church. Science of education, psychology, methodology, the most ingenious devices, can never supply the dynamic that will rouse the deeper springs of being that make for strength of character.

This conception of the teacher implies a love of the work, a deep respect for his profession and a loyal support of its organizations, institutions and undertakings.

What is the attitude of the average teacher in this connection? He is woefully deficient in the spirit of professional loyalty. The extent to which this is true may be judged from the results of a recent questionnaire submitted to the teachers of the City of Ottawa. They were assured that the purpose of the questions was purely academic. From 150 letters sent out, but sixty-four answers were received. This is a significant comment in itself. Of these sixty-four, thirty did not subscribe for any professional magazine whatever. In connection with a course of five lectures under the auspices of the Teachers Association, twenty-one of the sixty-four did not attend a single lecture of the series.

There seems to be not only a passive indifference on the part of members towards their profession, but even a well marked tendency to actually disown or renounce it in public. This attitude was quite patent on the part of a young teacher, who in purchasing

a bag in which to carry his books and examination papers to and from school, selected a lawyer's brief bag in order that he might not be known as a teacher on the street.

There is no greater obstacle in the way of the teaching craft taking its rightful place among the other learned professions, than this very lack of pride among the members themselves. The whole explanation lies within the ranks and may not be laid at the door of the outsider as refusing to give the teacher his due. Recognition for the profession must first be earned and this can only be accomplished by a persistent endeavour to have each teacher qualified along the lines of the requirements touched upon here and others that might easily be added.

Standards, where lacking, should be fixed; existing standards should be raised; the period of training should be lengthened. Corollaries to these changes will be recognition on the part of the public and substantial increase in the material rewards for service. The net result to the teacher will be that he will then have come into his own; he will have become a self-respecting citizen; a respected and influential member of the community; a member of an honoured profession; the custodian of the most valuable of the country's resources. He will no longer need to be unduly hemmed in by narrowing regulations. He will be granted the right to assert his individuality. A wise balance will be maintained between necessary regulation and freedom to work out one's own ideas. The dead level of uniformity among teachers will be a thing of the past. He will no longer plead to be admitted to the rank of the learned professions of medicine or of law. There will then be a greater respect for law and fewer lawyers, a greater knowledge of the laws of health and fewer doctors. When standards are set where they should be for teachers, the exodus from our ranks may be checked and we shall find recruits from among the best in other fields.

ESSENTIALS IN TEACHER TRAINING.

S. A. MORGAN, D.PÆD., TORONTO.

To offer as a subject for discussion such a topic as "Essentials in Teacher Training" implies what certain at least of our students of education have ventured to deny. It indirectly affirms that skill in teaching does not depend solely upon native aptitude, but rather that teaching is an art based upon organized principles of procedure, and that only to those versed in these principles and practised in their application in the art can the instruction of children safely be intrusted. While postulating so much, however, our topic does not deny that the adequate interpretation and the successful application of such principles may be dependent upon the possession by the teacher of certain personal qualifications. Without deciding whether gifted personality or much training is the more potent in directing the art effort of the teacher, we shall assume that in teaching, as indeed in all human effort, the highest achievement is dependent upon a specific training and development coupled with the possession of fundamental native traits. In discussing the essentials in teacher training, therefore, we shall recognize in a general way certain essentials which, though no doubt capable of being rendered more effective by training, are in the main native assets.

Moreover the discussion of this topic should not be confined to the limits of the training school period. If the skilful teacher is both born and made, and if essential native traits may be modified by experience, then the activities of the training school period will, to a considerable degree, depend upon and be conditioned by the activities of the pre-training school period. Moreover, since all artistic development is a somewhat slow growth from crude effort to effective skill, the essentials of such a training cannot be compacted within the limits of a brief period. And in no art, perhaps, is the growth into efficiency necessarily more slow than in the teaching art. No one experienced in the work of teacher training, therefore, expects the highly trained teacher to be the immediate product of the training school period. Such efficiency must depend in no small measure upon the activities of the post-

training school period. For these reasons, we shall organize our few thoughts on this subject under the following heads:

1. Essentials of the Pre-Training School Period.
2. Essentials of the Training School Period.
3. Essentials of the Post-Training School Period.

PRE-TRAINING SCHOOL PERIOD.

When our Saviour was receiving at Nazareth what may be termed the preliminary training upon which His subsequent ministrations were to be based, it was said of Him that He grew in wisdom and stature and in favour with God and man. In other words the foundation stones of His high office were:—

(a) Intellectual, (b) Physical and (c) Moral and spiritual.

It would seem no unwise conclusion, therefore, on the part of our educators that they have accepted in a general way these same attributes as the essentials of the pre-training school development of the would-be teacher and demand of our entrants:

- (1) Academic qualifications.
- (2) A certificate of health.
- (3) A certificate of moral character.

Under the first of these, however, an important problem faces us. How are we to insure that the intellectual knowledge possessed by the student-teacher really constitutes that wisdom which can alone afford a sure basis for further progress? The modern reaction against the faculty theory of training and the resulting emphasis upon the dynamic power of knowledge, while no doubt sound in general, has too often resulted in accepting as a sign of wisdom the possession for their own sake of mere knowledge facts. But to burden the mind with ideas and opinions with no ability to apply them clearly in directing conduct through power of judgment is not to gain wisdom. While it is not to be expected that the High School graduate on entering the training school will see the full significance of all his intellectual possessions in relation to human acts and their consequences, we may

postulate that it is desirable that he has in some measure transformed knowledge into life aptitude, in so far at least as concerns the curriculum he is to teach. Accepting it as the desideratum for the entrant that he have some knowledge fully mastered, that is, converted into wisdom, rather than many things only partially digested, we may, I take it, grant that intellectually our entrants are being fairly well prepared.

In addition, however, to control of knowledge, there is in the use of knowledge such a quality as alertness of mind. The possession of this, if not essential, is at least important to the would-be teacher. It is the possession of this trait that will give the young teacher the attitude to use effectually his mental equipment. But whether the possession of the trait is the result of training or a native possession may be a question.

On the physical side, while it is essential that the prospective teacher should possess health, it would seem equally important that he possess a reasonable degree of nervous energy. Without this there is little likelihood that he can develop that divine enthusiasm for the teaching office which gives the eager purpose, not only to do, but also to strive ever to do better.

Perhaps there is no place where it is more difficult to decide what should be expected, or to insure its presence, than in regard to the moral and spiritual equipment of the student-teacher. Certificates of character are cheap and often worth what they cost. Suffice it to say that his previous training should have developed moral sentiments within the would-be teacher and subdued his passions through the influence of reason and habit formation. The education of the feelings so important to this end is, I fear, a problem not yet fully solved. Our own efforts in the field of moral instruction are, however, I think, as effective as those of other educational systems, unless it may be in regard to the influence of habit upon moral character. In any case, I am not one of those who would claim that our schools fail in the sphere of moral education, but think rather that we may hold that the essentials of the pre-training school period are being fairly provided through the activities of our Public and High Schools. The chief matter of regret is, perhaps, that the possession of knowledge facts seems in popular opinion to be viewed as an all-important essential of the pre-training school period.

TRAINING SCHOOL PERIOD.

If, as already stated, teaching is in reality an art, then the great essentials of the training school period are:—

(1) That it make its students acquainted with the leading principles of the art.

(2) That it develop in its students some degree of skill in the practice of the art.

Under the first of these may be noted, as subordinate essentials, the following:—

(a) A larger view of the worth of experience. This, as already noted, demands that the student-teacher be made master of the curriculum for the teaching of which he is preparing.

(b) In addition to realizing more fully the worth of experience, the student teacher should further realize in a general way how this experience is to be presented to the learner so that it shall be assimilated by him as vital experience.

(c) As a corollary to the former two essentials, it follows that the teacher should see what elements of knowledge are capable of being made vital to the pupils of the different forms and grades. In other words, in addition to obtaining an adequate knowledge of subject matter and general method, the student teacher should obtain wisdom in selecting knowledge and adapting it to the life interests of the children at different stages of their developing experience.

Under the second of the above essentials may be postulated that the practice school must give its student a certain class-room aptitude, or, in other words, habituate him to the teaching atmosphere. This will include:—

(a) To develop in him a certain degree of confidence in his function as a class instructor.

(b) To develop in him a degree of confidence in his function as a class manager.

To obtain these essentials is undoubtedly the *summum bonum* of the training school. Two plans may be mentioned as not likely to lead to the desired results.

(1) A large measure of mere theoretic study, whether of principles or of methods.

(2) A large amount of practical work of a blundering and desultory character.

To obtain the desired results it is essential rather that there be a close co-ordination between the practical work of the students, both in observation and teaching, and the principles and methods connected therewith. It is in this connection that a most vital part of the training of teachers at this stage is to be found. Too often, even where reasonable effort is made to direct the students' work, this direction consists of isolated criticism rather than of a review of the teaching effort of the novice in the light of the vital principles of the teaching art. Mere criticism, however, will accomplish little. Moreover, it is likely to lead to a dead uniformity in these discussions, discussions which should, on the other hand, be free and varied to suit varying conditions. This latter aim can be gained only by making these conferences, as already stated, a free examination of the teacher's practice in the light of the foundation principles upon which such practice is supposed to be based.

INFLUENCE ON PERSONAL ATTITUDE.

To the training school period belongs also the duty of influencing as far as possible the personal side of the teacher as follows:—

1. In addition to giving the young teacher a sense of power and enthusiasm that will necessarily arise from the gradual growth of skill in the art, the training school should aim to develop in him something akin to the missionary spirit in connection with the teaching office. It should aim, in other words, to make the young teacher feel within himself, "I must follow this office whereunto I am called."

2. It should not only continue to develop within him high moral ideals, but should also create in him a certain refinement of spirit and that respect for the feelings of others which is summed up in the term good manners. This may usually be developed, however, more through the atmosphere of the training school itself than through direct admonition and instruction.

3. It should implant in him a due respect for the judgments and opinions of others. We all have heard more than once how the average teacher is viewed as one who, in his relations with others, is intolerant in word and in action. This is, no doubt, an evil likely to dog the steps of one who day by day is exercising authority over inferior minds. Yet no one thing, it seems, does more than this reputation to lessen the influence of the profession among people in general. Is it not essential, then, that in the training school we aim to give our pupils a more urban outlook in regard to their fellow men, and create in them both a thought and a feeling attitude that may be proof against this danger?

Lastly, the training school should strive to set the coming teacher in a proper thought and feeling attitude toward the great factors which go to make up the corporate body within which he is to work, and with which he should work in hearty co-operation; toward the Department of Education as the setter-up of educational standards, toward trustees as business managers, toward inspector and principal as friends and guides, toward childhood in general as educative material, living, spiritual and responsive, and toward parents as the ones most directly interested in the results of his labour.

ESSENTIALS IN THE POST-TRAINING SCHOOL PERIOD.

If, as already stated, teaching is a slowly acquired art, proceeding from early crude effort by slow development to a higher efficiency, then not only the most important, but in many ways the most critical stage of the teacher's development takes place in the post-training school period. It is then, indeed, that the young teacher must develop into that unconscious freedom of action that marks the third and highest stage of any branch of human activity. This growth out of the conscious into the unconscious practice of the teaching office is in turn a somewhat slow progress, filling in a reasonable period of the teacher's early teaching experience. Here, surely, there is equal need for direction and guidance.

For the supervision of this stage of the young teacher's career, the most important influence is, in the case of the ungraded school, the inspector, and in the case of the graded school, the inspector and the principal. Under existing conditions two circumstances

limit the efforts of the county inspector to give to this duty the attention it merits. In the first place each succeeding school year finds so many inexperienced teachers being installed in his inspectorate that the effort of supervising them with any degree of completeness seems almost an impossible task to the earnest inspector. Secondly, the many other duties of his office would not enable him to give his young teachers, even were they fewer in number, all the attention he would desire.

In spite of these difficulties, many inspectors, I know, have given their young teachers, especially through the medium of the Yearly Reading Course, a reasonable measure of the necessary guidance and inspiration. In addition to taking advantage of the opportunities that such meetings afford them of rendering direct assistance to the teaching novice, the inspectors have been able by this means to make use of the experienced teacher as a guide and inspirer to the beginner. The holding of Saturday office hours for consultation, as done by most inspectors, is another important agent in the post-training school growth of the young teacher.

Some effort has been made by training school principals and masters also to follow the young teacher into the school room through correspondence. The young teacher is encouraged before leaving the training school to seek additional light from her alma mater in future cases of difficulty as they arise. This method, though well intentioned, is usually not very effective. It is to the inspector that the teacher on active duty looks for guidance, and the most important task of the training school in this respect, as already stated, is to develop in the teacher-in-training the proper spirit in which he is in the future to view his inspector, namely, as a friend and experienced guide.

To the training school does belong, however, the duty of providing post-graduate courses by means of which a future growth in the knowledge and skill of teaching may be made. These might well include correspondence courses in addition to those of the regular type. Here, in turn, it is the duty of the inspector to encourage his teachers by means of such courses to continue the upward ascent into a fuller life of effective and joyous service. Finally let us bear in mind that all art is long and time is fleeting and that, the paths of success being slow and long, it is only by earnest and continued emphasis upon essentials that skilled teachers can be developed.

MEANS OF AROUSING INTEREST IN MUSIC.

T. A. BROWN, NORMAL SCHOOL, OTTAWA.

It has been given to me to introduce a discussion on the question of how to arouse greater interest in music. The area allotted is certainly ample; but in crossing a field one can tread only a single path, consequently there will be sufficient ground left for those who follow to throw light on the question from other angles.

The topic readily divides itself into three phases, namely, how to influence the school life, the home life and the community life.

In one sense these three are inseparable, since the school draws its pupils from the homes and the total of the homes constitutes the community. However, while in theory this is true and ideal, yet in actual life it is not true. They are not linked up as they might and should be.

Those of you who have had the experience of rural teaching know that, in many cases, there is but little connection between the school and the home, and there are those who seem to be awaiting an opportunity to make the teacher's life more difficult. But while there is still a lack of full co-ordination, this phase of our civilization is improving and there is a growing, determined effort, on the part of all educators, to emphasize the fact that the school life and the home life are complementary, and to make the school the centre of interest in the community. Although it has made no pronouncement, signs are not wanting to see that the Department of Education recognizes the fact that our present rural school system has fulfilled its mission, is now antiquated and cumbersome, and is failing to supply the needs of the changed conditions of rural life.

The most deplorable phase of life in the open country is the almost total want of a common interest—the lack of a community spirit. One might think that the church would provide a common ground, but on the contrary, religious interests are divided and sub-divided to the verge of jealous rivalry, which tends to destroy even friendly relations between neighbours. From recent first-hand observations, I am led to believe that in social attractiveness it is below what it was forty years ago, when the Divisions of the

Sons of Temperance, the Courts of Good Templars, and the sessions of the old singing school prevailed. *The great crying need of America is the improvement of rural life.*

Many of our leading men are earnestly turning their thought to this question and the pronouncement of Theodore Roosevelt is generally accepted as the line along which improvement must come: "Better business, better farming, better homes."

The exigencies of the times has resulted in the organization of various Farmers' Associations, e.g., The Grain Growers' Association, the Fruit Growers' Association, the Milk Producers' Association, etc., which means the formation of plans for "better business"; and better farming will follow when it is proven in a practical way that it means greater profits.

In neither of these are we directly interested; but in the third phase of the problem we are interested because it comes within the field of our influence. No subject on the school curriculum has more direct and beneficent effect on the home life than the one which we teach.

Homes gradually grow into being, unfolding year after year, shaping themselves into happiness or moulding themselves into discord in agreement with the atmosphere pervading them. Homes are not bought and sold as some real estate dealers would have us believe, from their advertisements.

In introducing this topic I have taken this brief survey of rural conditions for several reasons. In the first place, in all the cities of Ontario and in most of the towns and larger villages this subject is already taught by competent teachers.

Adequate provision has been made by the Government for carrying on the work, so that, as far as the Department is concerned, they have done nearly all that can be done for them; but the rural problem is still unsolved, and they are earnestly seeking a solution and are looking to us for suggestions and advice.

The immediate field is the school; and while, by additional labour, a portion of the community may be reached and interested through the organization of choruses and glee clubs, yet the one hope of effectively and permanently interesting the homes is through the school. This is the only organization in which all the people have a common interest, and from this centre under ideal

conditions should radiate influences that would reach the circumference of the community. Generally, thoughtful parents are interested in the things that interest their children and in a comparatively short time these children will be the home-makers.

There are two great barriers to effective work. The first of these is the inability of many teachers, through the want of natural talent, and the lack of preliminary training prior to entering Normal School, to teach it even fairly well. No teacher should be granted a certificate to teach elementary classes who cannot sing and recognize the more frequently recurring scale intervals found in melody. To deprive the children of adequate training in music is to do them an inestimable wrong.

Comparisons are odious, it is said, but it might be pointed out that the two subjects which touch life most closely are language—oral and written—and music. An extended preliminary training is required in the first, then why not in the second?

The Department already concedes this point, since they require all kindergarten and kindergarten-primary teachers to be qualified to teach the subject.

The second great difficulty arises naturally out of the constitution of our present rural school system. The numerous small schools with a limited number of children of varying ages makes it impossible for even the most enthusiastic teacher to create a force strong enough to make itself felt throughout the community; it is an impossible task and will remain so until the little ungraded schools have been replaced by the well appointed consolidated school which is already due to appear on the educational horizon. The consolidated school is coming and may be here earlier than we anticipate. The Government has now an able educationist in the field giving illustrated talks on the subject, while the Trustees' Section in this Association will discuss the question at their Thursday morning session.

You will then see an army of supervisors each directing the course of study in as many schools as he can reach; and it will have become possible to employ what is generally conceded to be the most powerful agency in creating interest in this subject, namely, friendly competition.

Those who have not thought much about the matter, naturally ask "Why is competition necessary?" I believe Mr. Smith was met with this question and I hope he will be good enough to relate his experience in this connection. Two or three reasons may be given why competition is essential to the best success. First, it is a natural human instinct to want to measure up against an opponent. This is true in every phase of life. So true that, in the business world, we have the proverb, "Competition is the life of trade." It arouses the resourcefulness and generalship of the leader. It kindles the enthusiasm of the competitor and makes it possible for the leader to procure results that otherwise could never be obtained. That on the one side and then on the other there is the natural desire on the part of the performers to exhibit their proficiency; the natural desire to please, to entertain and to receive commendation.

The choir leaders here might be asked how long they would expect to hold a choir together for the practice of anthems which were never to be sung in public. Ambition, emulation, rivalry, competition, the desire to excel, call it what you will, is the spur which has secured the world's progress, and when these are used from a right motive, they are beneficent, and elevating to the individual character. The opportunity to use these incentives to progress in scattered districts seldom presents itself. The automobile, however, is to some extent eliminating distance, so that the time may not be far away when community competitions may become possible. The two great difficulties standing out against such a movement are, the lack of initiative and the want of leadership.

In the homes of America, there has been a marked, though gradual, growth of interest in music during the last ten years. The prosperity of the farmer is bound to give it an impetus that will be lasting. In the rural home-life two new instruments have appeared with which we must reckon. One, as yet of rare occurrence, is the player piano; the other, which is quite common, is the gramophone.

The gramophone, while we may criticize it favourably or unfavourably, has arrived and is going to remain. The question therefore, for those who are interested in the music of the age, to consider and deal with is, what effect is this instrument going to

have upon the study of music and upon the life of the people? Is it likely to be beneficial or detrimental to the highest culture? If its influence is for good, how can we increase that influence and use it to the best advantage? Or if, on the other hand, its influence be not for the best, how may we mitigate that undesirable tendency?

On the two sides of this "Loss and Gain" account there are several items to be entered up. In the first place, in reproduction there is the absence of the human element—the soul quality. Notwithstanding the fact that this was present when the record was made, we cannot entirely accustom ourselves to its absence; we insistently feel that it is the product of a machine rather than of a human soul.

In the second place, there is in nearly all records an appreciable loss of tone quality. This is especially true of the piano and violin, and to some extent, of the voice also.

Yet, if we were allowed to make a comparison, we would claim that the reproductions of the voices of the great artists are better in their class than the mechanical reproductions of the great painters.

There is, however, the lack of the emotional touch and charm; they may reproduce the tone element with a certain degree of perfection, but they cannot reproduce the feeling within the soul of the singer which gives colour and life to the song, manifesting itself, perhaps, in an attitude, an almost imperceptible gesture, or in a soulful facial expression, as well as in the voice.

Ideals are the fixed stars of life—the distant goals towards which we steer but never reach, because as we advance or climb, our ideals change, or ascend to a higher plane. And so when we present the tone quality of the gramophone, although it is fairly good, it is not ideal, and, therefore, not worthy of imitation.

On the other side, the things that are perfect and worthy of imitation are the time, the rhythm and the melody.

The present use of the gramophone in the home is largely that of amusement or entertainment, which while legitimate and beneficial is not its highest function. Indirectly, of course, it teaches familiarity with styles of melodic progression, and unconsciously the listener learns the trend of melody. It also enables

the hearer to become acquainted with music of a standard far beyond the ability of any but trained artists; and so the taste for the best music is brought into being and developed.

But in this restless, impatient, ease-longing age, will the fact that the taste has been developed far beyond the ability to perform have a detrimental effect upon the musical education, if so, how can this be offset in other ways? The highest function of the gramophone is to train the child in æsthetic appreciation. We derive our pleasure in music from three sources, namely, the sensuous, which recognizes tone quality; emotional, which interprets the feeling; and the intellectual or æsthetic, which analyzes chordal and melodic relationships, recognizing unity in complexity. This is the highest form of musical appreciation. To do this requires carefully directed study. Therefore, in every school the gramophone should be found; but more especially in the Normal Schools, where the teachers-in-training would at least have some instruction in the art of intelligent listening.

And finally how to arouse a deeper interest in music among the pupils themselves? Before a child can read, there are two mental images that must be permanently fixed: first, a clear and definite visual image of the relative position of each note to every other note in the scale; and second, a clear and definite auditory image of the tone relations,—the exact distance from any one note to any other. To be able to read he must be able to recall these images automatically. This power as you know is absolutely essential, hence the question arises how best to fix them in the mind impression at the earliest possible period in their lives, and to do it in an interesting way.

TWO OUTSTANDING MEN AND THEIR CONTRIBUTIONS TO METHODS IN PUBLIC SCHOOL MUSIC.

J. BOTTOMLEY, A.R.C.O., NORMAL AND PUBLIC SCHOOLS,
STRATFORD.

First I will mention Mr. T. P. Giddings, Director of Public School Music for the last ten years in Minneapolis. The Music Supervisors' National Conference met in Minneapolis in 1914, and before the conference met, Mr. Hayden, the Editor of the "*School Music*" magazine said: "All who attend are certain to see first-class work in music education illustrated by classes of the Minneapolis Schools." And after the conference, the Editor said: "It is the testimony of all who heard the work done by the Minneapolis children, that the sight-singing results were in the highest degree satisfactory."

Also—Mr. Gehrken, a well-known authority, said in a letter:

"Mr. Giddings showed us the most wonderful school music that I have ever seen, especially in point of sight-singing and tone-quality. I admire Mr. Giddings very highly and consider him to be one of the strongest teachers I have ever seen at work."

For myself, I will say, Mr. Giddings seems to hold a unique position as a Pedagogue in Public School Music. Let us see what he stands for. He is one of the leading apostles of the song method. He uses no exercises from books; that means, that if he used Mr. Cringan's book he would eliminate all the exercises and use only the songs. "Songs only" is the slogan.

The idea is that mere exercises are overdone; and they feel that every exercise should be a song. That better results can be secured by reading songs, because of the interest in them. And that when the song has been correctly read and good interpretation secured, something real has been accomplished.

Mr. Giddings has a great deal of individual singing. As soon as a class of Grade 1 children can sing a song, he has individuals try it. When they have learnt a few songs, he has all the children heard individually, and then has them seated in a graded fashion, the best in the back seats and the worst at the front. The child in the back seat is looked upon as the little teacher for the row.

This child rises and sings a song, then remains standing. Then the next child sings and takes his seat; and, so on, all down the row. As the singing gets toward the front, the little teacher stands behind each one and helps those who need it by singing with them. The singing goes down the row quickly, without losing a beat. Sustained singing is insisted upon. Each child is required to sing a phrase in one breath.

Mr. Giddings cuts out all the theory he can, because time is too short to teach anything that is not really essential. When he was asked why they did not teach the pitch names or letter names, he said: "Will someone rise and explain what earthly use the pitch names are to the child learning to read music in the fourth grade." What he means is: We do not read by pitch names or letter names. The *doh* is on a certain line or in a certain space, and we read by sol-fa syllables, that is, either singing the sol-fa syllables, or thinking the sol-fa syllables and singing the words. There are numberless facts the child might know about music if there were time to teach them. But comparatively few of these facts are needed to enable him to read and interpret vocal music intelligently.

Then he says: "Teach in the shortest and best way." If he taught sol-fa notation, he would say: "When you teach a half-pulse continuation do not use a phrase of four measures, use only one measure."

I once heard a prominent supervisor say that one of the big lessons was how to find the key. I am referring to staff notation. Mr. Giddings simply says: "Teach pupils that when there are no sharps or flats *doh* is on the line below." "The right hand sharp is *ti*. The right hand flat is *fa*." In the Second and Third Grades, when reading from books, Mr. Giddings has the children use the forefinger to point and tap. Mr. Giddings stands for a happy, pleasant, and joyous atmosphere in the singing period.

Five or six years ago, the Supervisors' National Conference was held at Rochester, and Mr. Giddings kindly answered a group of questions submitted to him. They have some value. Mr. Bottomley read these questions and answers.

It seems to me that in Minneapolis their grade teachers measure up to a higher standard, musically, than do our grade teachers in Ontario. With us, the grade teachers are the weak links in the chain. One reason is that our Normal training lasts for one year, while in the States and also in England it continues for two years. Another reason is that we teach two notations, the Sol-fa and the Staff; and practically the same elementary work has to be gone over twice. In the States, they teach the staff notation only. In our Normal Schools we must teach both notations, because they are both used in the schools of the Province.

Our Normal students get two periods per week, in vocal music, and considering that a large percentage of them have never had music in their early school life, two periods per week in the Normal School is not enough to make them efficient teachers of vocal music. Three periods per week given to vocal music in the Normal School should be the minimum. I think, also, that in our Normal Schools, the staff notation should not be put off to some time later in the term, but should be taught regularly from the beginning of the term. Then, we should have the two notations taught side by side all the way through the Normal School year.

The latest idea of Mr. Giddings is Public School piano classes. Two pianos are needed in a room for a class of sixteen children, who must all be above the Second Grade. They are able to perform music with their voices; but are now going to learn to make music through a new medium, the piano key-board. The singing teaches the piano. This new phase of school music is becoming very interesting, and is worth watching. Mr. Giddings' books for "piano classes" are published by The Oliver Ditson Co.

Another outstanding man in connection with Public School music is Mr. E. W. Newton, of Boston. Mr. Newton's book, "Music in Public Schools," is worthy of the careful attention of every supervisor. A full course is laid out for eight years' work, week by week, and lesson plans, or outlines, are given for teaching all the problems. He says:

Teach the rote song as follows:

Teach the quarter-note as follows:—

Teach the divided beat as follows:—

Teach the dotted quarter-note as follows:—

Teach the sharp four quarter-note, and so on.

I like the definiteness of this book. He does not say, you might teach this, that, or the other way, thus leaving the young teacher wondering what to do. He just says, teach so and so as follows. Still Mr. Newton is not dogmatic. He says in his preface: "While all good methods of teaching have the same underlying principles, yet they may differ in detail. This manual simply presents one method."

Again, he says, that it may be a source of the greatest helpfulness to the teacher, this method is offered in the spirit of suggestion only. "The resourceful teacher will curtail, amplify, if necessary omit, or otherwise change any feature as circumstances may require."

Mr. Newton was a High School Principal and is a good musician. His services were secured by Ginn & Co., publishers of text books, the object being the publication of new text-books in Public School music.

Mr. Newton has a good deal of originality. He suggests teaching "the beat" by reference to the ticking of the clock, the church bell striking the hour, the marching of soldiers. Then he teaches that the quarter-note is the "beat note" and it remains the beat note for two years' work. But he does not call it the quarter-note. He calls it "Type One." He teaches six-eight time by first teaching three-eight time. When the class has had sufficient experience in this to be efficient, he teaches six-eight time by a group system. Mr. Newton presents the scale and tonic sol-fa syllables by means of a rote song. That is, a rote song is taught to the tune of the scale, down and up, beginning about upper E flat. The following words are often used:—"What does little Birdie say in her nest at peep of day?" When this is done well, the sol-fa syllables are taught, as second verse, by rote. The children can then sing down and up the scale to the sol-fa syllables. So by this method the scale is first presented as a whole, and the children are taught to sing it in good steady rhythm like any other song. He then proceeds to associate the numbers one to eight with the syllables. Then he begins the in-

tervals by oral dictation and by staff dictation. Mr. Newton continues the work on these intervals by what he calls "Staff reading."

I trust I have not wearied you, but I do feel that it is well for us to know what methods are used in other cities besides our own, in the teaching of the most beautiful subject in the Public School Curriculum.

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- Onderkirk, Miss D., Hughes School, Toronto.
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CONTINUATION SCHOOL SECTIONS.

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 Clark, Geo. A., Drayton.

Judge, A. E., Odessa.
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 Craig, T. A., Kemptville.
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 Greer, V. K., London.

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 Hoag, J. P., Toronto.
 Huff, S., Meaford.
 Hutchison, R. A., Whitby.

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 Marty, Dr. A. E., Toronto.
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 Michell, F. L., Perth.
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 Minns, J. E., Tweed.
 Moore, J. L., Parry Sound.
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 Nelson, J., Vanleek Hill.
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Odell, J. W., Cobourg.

Paterson, R. A., Ingersoll.
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 Putman, Dr. J. H., Ottawa.

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 Ritchie, J., Port Arthur.
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Scoville, H. R., Bracebridge.
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 Truscott, S. A., Kingston.

Wright, R., Hanover.
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